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TWO GRAND TOURS

THROUGH THE

YELLOWSTONE NATIONAL PARK

THE PACIFIC NORTHWEST AND CANADA.

Leaving Boston July 27 and September 7, 1891.

TOUR THROUGH THE YELLOWSTONE NATIONAL PARK AND RETURN, LEAVING BOSTON JULY 16.

W. RAYMOND, I. A. WHITCOMB,

296 WASHINGTON STREET (opposite School Street), **BOSTON, MASS.**

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SEASON OF 1891.

TWO GRAND EXCURSIONS OF THIRTY-SIX DAYS

THROUGH THE

YELLOWSTONE NATIONAL PARK

WITH A COMPLETE ROUND OF ALL THE POINTS OF INTEREST IN AMERICA'S WONDERLAND, AND AMPLE TIME FOR A THOROUGH INSPECTION OF ITS MANY MARVELS; A VISIT TO

THE PACIFIC NORTHWEST,

And a Return over the

PICTURESQUE CANADIAN PACIFIC RAILWAY.

INCIDENTAL VISITS TO CHICAGO, ST. PAUL, MINNEAPOLIS, PORTLAND, THE COLUMBIA RIVER, TACOMA, SEATTLE, VICTORIA, VANCOUVER, B. C., BANFF HOT SPRINGS, AND MONTREAL.

DATES OF DEPARTURE AND RETURN.

FIRST PARTY.—Leave Boston Monday, July 27; Return Monday, Aug. 31.
SECOND PARTY.—Leave Boston Monday, Sept. 7; Return Monday, Oct. 12.

PRICE OF TICKETS (all traveling expenses included), - - - $375.00.

EXCURSION OF TWENTY DAYS THROUGH THE YELLOWSTONE NATIONAL PARK AND RETURN,

Leaving Boston Thursday, July 16. See pages 83–96.

PRICE OF TICKETS (all traveling expenses included), - - - $225.00.

W. RAYMOND, I. A. WHITCOMB,

296 Washington Street (opposite School Street), Boston, Mass.

AMERICAN PRINTING & ENGRAVING CO., 50 ARCH ST., BOSTON.

Suggestions in Regard to Joining a Party.

Persons desiring to join any one of our parties should send their names to be registered at as early a date as convenient. A name is registered as soon as there is an intention of going, and this registration secures a place in the cars, at hotels where sojourns may be made, and in every way insures membership in the party. No payment of money is required in this connection, and no responsibility is incurred. If circumstances prevent the person from going, early notice of the fact should be sent to us, and the name will be taken from the list, and the next applicant permitted to fill the vacancy. Tickets can be taken and paid for at the convenience of the passenger any time to within three or four days of the date of departure; and, should the passenger then be prevented from going, the money will be refunded. The advantage of sending in names early is readily seen. In all cases the parties are limited in numbers, and it frequently occurs that parties are filled long before the dates of departure. Persons are not compelled to come to Boston for the purpose of joining an excursion, but may connect with the train at any convenient point along the route.

1891.

TWO GRAND TOURS

—TO THE—

YELLOWSTONE NATIONAL PARK

—AND THE—

PACIFIC NORTHWEST,

Returning over the Canadian Pacific Railway.

JULY 27 TO AUGUST 31; SEPTEMBER 7 TO OCTOBER 12.

For six years past our summer and autumn tours through the Yellowstone National Park have been among our most popular excursion enterprises. For this year, we have planned two excursions, including all the grand features of these trips, with other attractions of the most picturesque order, viz: Puget Sound, the Columbia River, and a homeward journey over the Canadian Pacific Railway, across the Canadian Rockies, and the great plains of the Northwest. Thus two great transcontinental lines will be traversed for their entire length, with special facilities for viewing the wonderfully grand scenery through which they pass, and the cities and other points of special

interest incidentally visited. This, it should be understood, is in addition to a thoroughly comprehensive round of the Yellowstone National Park, where our excursions are this year sure to prove more enjoyable than ever, on account of improved facilities for travel and enlarged accommodations. Much has been accomplished within the park during the past few years. The roads have been shortened and improved, and much more sight-seeing can be accomplished in a given time than formerly. The hotel service is under very excellent management. A thoroughly responsible party of capitalists took charge of this latter feature a few years ago, and every means has been taken to meet the demands of increased travel. New buildings were erected and old ones enlarged. This change conduced largely to the comfort of tourists. A new hotel at the Yellowstone Grand Cañon was completed last year, another has been built at the outlet of Yellowstone Lake, and a third is to be opened this season near the Fountain Geyser in the Lower Geyser Basin. The transportation facilities (under the direction of Mr. George W. Wakefield) have also been put in the best condition, and the stage journeys are made with entire safety and comfort.

An entire week will be passed within the park. This is a longer time than is usually taken by visitors, and affords opportunity, not only for more thorough sight-seeing, more extended exploration, and a more intelligent study of the marvelous phenomena of the geysers and springs, but also for rest, which becomes an important consideration in a tour of this nature. In this connection it should be said that the expenses of traveling and sojourning within the park are necessarily high. In view of this fact, it would have been an easy matter to cut down the time, in order to lessen the expense; but we have deemed such a course prejudicial to the best interests of our patrons, and, in place of curtailing the expenditures in that particular, have made the trip a complete one, feeling that the extra days will be fully appreciated. The

Yellowstone National Park tour may now be made safely and with entire comfort; and, with time at command for the round of stage rides to be taken in a leisurely way, as in these excursions, it becomes one of the grandest, as well as one of the most novel, experiences known to the world of travel. Every feature of the excursions has been arranged with a purpose of giving to the traveler the best possible service. Vestibuled Pullman palace cars or the finest Canadian Pacific sleeping-cars, dining-cars, and the best hotels will contribute to this result. On the sleeping-cars every passenger will be entitled to a double berth, only two persons thus being placed in a section where there are seats provided for four. Extra accommodations can be secured at customary sleeping-car rates.

From Boston to Chicago.

The route of the excursion from Boston westward lies over the popular Hoosac Tunnel and West Shore lines. The parties will leave the Fitchburg Railroad station at 3.00 P. M. Monday, July 27, and Monday, September 7, in trains of palace sleeping-cars. There will be a daylight ride through western New York and the most picturesque part of the Province of Ontario. The train will cross Niagara River on the great suspension bridge in the forenoon. From this point westward we traverse the Southern Division of the Grand Trunk Railway and the Chicago & Grand Trunk Railway. From Point Edward, near Sarnia, the cars are ferried across the St. Clair River to Fort Gratiot, near Port Huron. A tunnel is being constructed under the river, and the ferry will be dispensed with upon its completion.

In Chicago.

On the arrival of the parties in Chicago Wednesday morning, there will be a transfer by Parmelee's omnibuses from the Dearborn station to the Sherman House, which will be made a place of sojourn until the ensuing afternoon. There is no programme

feature of the stay in this city, the members of the parties following their own inclinations. The hotel is centrally located, and every part of the city can readily be reached therefrom by horse-car lines, cable cars, or electric cars.

From Chicago to St. Paul.

Leaving Chicago at 5.00 P. M. Thursday, by the Wisconsin Central Division of the Northern Pacific Railroad (omnibus transfer from the hotel to the magnificent station, corner of Fifth avenue and Harrison street), the parties will proceed in vestibuled Pullman palace cars over this popular line through Wisconsin to St. Paul. This route takes us through Waukesha, Fond du Lac, Oshkosh, Neenah, Waupaca, Stevens Point, Abbotsford, and Chippewa Falls, all flourishing Wisconsin towns and cities. The train will reach St. Paul Friday morning, and there will be a transfer by Cook & Son's omnibus line to the Hotel Ryan.

In St. Paul.

We shall remain in this city through Friday and until Saturday morning. St. Paul is a city of recent and very rapid growth, although the oldest-settled portion of that empire of the Northwest, Minnesota. It was long an Indian town, and in 1680 was visited by Father Hennepin. The first white settlement was founded in 1838, and a Catholic mission was called St. Paul's; hence the name of the city. The town was incorporated in 1849, with a population of 400, and the city in 1854, with a population of 4,500. The St. Paul of to-day has a population of 133,156 according to the recent census, and is one of the handsomest as well as one of the busiest cities in America. Its wholesale trade amounts to over $72,000,000 per year. It is the capital of the State and the county seat of Ramsey county. Its situation, at the head of navigation on the Mississippi River, was at the outset greatly in its favor, and the centering here

of the great railway systems of the Northwest has given it still greater importance. The public buildings of St. Paul, and many of the business edifices, are truly magnificent structures. Summit avenue, which leads toward Fort Snelling, is lined with handsome residences. The fort is situated on the high banks of the Mississippi River, near the mouth of the Minnesota River. There will be a carriage ride thither and through the most attractive sections of the city.

In Minneapolis.

Leaving St. Paul Saturday morning, there will be a short railway ride to the neighboring city of Minneapolis. There will be a transfer by Mattison's omnibus line from the Union station to the magnificent West Hotel, corner of Hennepin avenue and Fifth street, where we shall remain over Sunday. The West is one of the largest and most elegant hotels in the country, having been completed at a cost for building and furnishing of about $2,000,000. Although less than thirty years old, Minneapolis has a population of 164,780,—an increase of 117,893 in ten years,—and its builders can hardly keep pace with the demands of trade and the calls of new-comers for residences. Its streets and avenues are spacious, and, in many instances, lined with trees; while its business blocks are among the most substantial and elegant in the country. Its immense manufacturing interests are headed by twenty-three flouring mills, with a daily capacity of 29,000 barrels and an export trade of 1,500,000 barrels per annum, and nineteen lumber mills, which cut 300,000,000 feet of lumber each year. The utilized water-power of the Falls of St. Anthony amounts to 130,000 horse-power at low water-mark. The manufacturing interests aggregate nearly $50,000,000. There will be a carriage ride Saturday afternoon through the most interesting business and residence sections of the city, and out to the picturesque Falls of Minnehaha.

Westward on the Northern Pacific Railroad.

The westward journey will be resumed Monday morning, the parties departing from the Union station, in Minneapolis, *via* the main line of the Northern Pacific Railroad, at 8.45 A. M. The journey will be made in a vestibuled train of Pullman palace cars, and meals will be served on the elegant dining-cars run by the Northern Pacific Company.

This great transcontinental line has brought within access of the tourist some of the most wonderful regions of the globe, and for its entire distance a country that is attractive and interesting. It traverses Minnesota and those new empires of the Northwest,—North Dakota and Montana,—and then penetrates the picturesque section of the Northern Pacific Coast. Scattered along its line are natural wonders in the way of lakes, rivers, and mountains, to say nothing of that greatest marvel of all, the Yellowstone National Park. Our western course will take us over this great road for upwards of 1,000 miles.

We first journey up the banks of the Mississippi River, going first northwest and then north, and passing through a rich and fruitful agricultural region. The surface of the country is diversified by lakes, rivers, and forests of hard wood. Before nightfall the train will pass through Anoka, the county seat of Anoka county and a flourishing place of some 6,000 inhabitants; Itaska; Elk River, county seat of Sherburne county; Sauk Rapids, a town of 1,000 inhabitants and county seat of Benton; Little Falls, county seat of Morrison; Verndale; Wadena, county seat of Wadena; Detroit, county seat of Becker; Lake Park; Glyndon; Moorhead; the flourishing city of Fargo, which confronts Moorhead on the Dakota side of the Red River; and a considerable section of the wheat country.

North Dakota and the Bonanza Wheat Farms.

The Territory of Dakota possessed the imperial domain of 150,932 square miles — a larger area than any of the other Territories or States of the country except Texas and California. It was about twice as large as all the New England States combined, more than three times the size of New York, nearly four times as large as Ohio, and nearly twice as large as England, Wales, and Scotland together. The population in 1880 was 135,180. In February, 1889, two new States were created from this great Territory — North Dakota and South Dakota. The census of 1890 gave North Dakota 182,425 inhabitants, and South Dakota 327,848. North Dakota, with an area of 75,000 square miles, through the southern section of which the Northern Pacific Railroad extends, possesses the peculiar soil and natural climatic conditions for the production of hard spring wheat, the kind that is consumed in the great roller flouring mills of Minneapolis. It is said that this wheat cannot be raised south of the Northern Pacific grain belt. The average yield of wheat per acre varies from 16 to 25 bushels in the Red River valley, and from 20 to 30 bushels on the uplands west. From 35 to 40 bushels to the acre, weighing from 61 to 65 pounds to the bushel, is not an unusual yield on the uplands of North Dakota. Seeding begins in March, and August is the harvesting month. Later, after threshing, the whole country is lighted by the burning straw heaps, the farmers vying with each other in making the largest bonfires. The ashes serve to enrich the soil. Prior to 1875 it was declared, upon high army authority, that beyond the Red River the country was not susceptible of cultivation. This sweeping statement gained wide publicity, and caused much hesitation with regard to undertaking the cultivation of the Dakota prairies. Messrs. George W. Cass and Benjamin P. Cheney (the latter of Boston),

both heavy capitalists and directors in the railroad company, having faith in the fertility of the land, determined to test its capacity for wheat production. They first bought, near the site of the present town of Casselton, 7,680 acres of land from the railroad company, and then secured the intervening sections of government land with Indian scrip, thus obtaining compact farming grounds of immense area. Mr. Oliver Dalrymple, an experienced wheat farmer, was engaged to manage the property, and in June, 1875, he began the cultivation of 1,280 acres. This has been extended until 30,000 acres are cultivated practically under one management, the area of the three tracts being 75,000 acres. Farming operations are here conducted on a gigantic scale, and yet with the greatest system.

In traversing the new State of North Dakota, the train passes through many thriving young towns and cities. Bismarck, the State capital, is situated 1,690 feet above the sea, and far enough above the Missouri River to be safe in the time of freshets. The Capitol building has a commanding situation upon a hill, and is a handsome structure. It is an important river port, for not only do steamers reach here from St. Louis, a distance of 2,000 miles, but there are as many miles of navigable waters northward and westward in the upper Missouri and its tributaries. North of Bismarck are thriving Scandinavian and Russian settlements.

On leaving Bismarck the train crosses the Missouri River on a fine three-pier iron bridge. The construction of this great engineering work involved the control and rectification of the river, which is now confined to a channel 1,000 feet wide, although the stream formerly had a width of 2,800 feet. The main spans of the bridge are 400 feet, and there are two approach spans of 113 feet each. The east approach is two miles in length, and the west approach 6,000 feet. The bridge was opened Oct. 1, 1882, having cost $1,000,000. On the west shore is the railroad city of Mandan, the

county seat of Morton county, and at this point the time changes, Mountain or 105th meridian time taking the place of Central or 90th meridian time.

Pyramid Park, or the "Bad Lands."

Near the little station of Fryburg, 586 miles west of St. Paul, the train suddenly leaves the rolling prairie and enters a long cut on a down grade, soon emerging upon a region of startling appearance. Here are the famous "Bad Lands," sometimes called Pyramid Park. The mighty forces of water and fire have wrought strange confusion. Buttes from fifty to 150 feet high are seen, with rounded summits and steep sides, and variegated bands of color. The black and brown stripes are due to veins of impure lignites, from the burning of which are derived the shades of red; while the raw clay varies from a glaring white to a dark gray. The mounds are in every conceivable form, and are composed of different varieties of argillaceous limestone; friable sandstone and lignite lying in successive strata. The coloring is very rich. Some of the buttes have bases of yellow, intermediate circles of pure white, and tops of deepest red. Others are blue, brown, and gray. Between these curiously shaped elevations are ravines and gulches through which streams meander, and there are occasional park-like tracts that afford nutritious grazing for cattle. The term "Bad Lands," as applied to this region and generally understood, is certainly a misnomer. The old French *voyageurs* described the region as "*mauvaises terres pour traverser*," meaning that it was a difficult country to travel through; and the term has been carelessly translated and shortened into "Bad Lands." The section we traverse is at the northern extremity of this remarkable region. The "Bad Lands" extend far southward into South Dakota.

Montana.

One mile west of Sentinel Butte the train passes from Dakota into another of the new States — Montana, which, with its 143,776 square miles of area, is nearly as large as North and South Dakota combined. The census of 1890 credited it with a population of 131,769. Montana is traversed by the Northern Pacific Railroad for nearly 800 miles. The mean height of Montana above the ocean level is estimated at 3,900 feet, the greatest elevation among the mountain peaks being about 11,000 feet, and the lowest, on the Missouri River, being about 2,000 feet. The main chain of the Rocky Mountains traverses the western part of the State in a course a little west of north, leaving about three fourths of its area on the eastern slope. Montana is well supplied with rivers. Her great water courses are Clark's Fork of the Columbia and the Missouri. The latter has many important tributaries within the State, including the Yellowstone, Milk, Musselshell, Marias, Jefferson, Madison, and Gallatin. The Missouri River system drains about 80,000 square miles of the State, or about twice as much as Clark's Fork. There are 1,500 miles of navigable streams within Montana. There are nearly 40,000,000 acres of grazing lands and 16,000,000 acres which are suitable for farming, in addition to its vast wealth in mines. The railroad traveler is likely to declare that the region is practically treeless, and yet the State contains no less than 14,000,000 acres of forests, or more than are comprised in the State of Michigan.

The Yellowstone Valley.

The first place of any importance reached in Montana is Glendive. This is a flourishing town of about 1,200 inhabitants, the county seat of Dawson county, and also an important point on the railway, the Missouri Division ending and the Yellowstone Division beginning here. The Yellowstone is one of the most important

tributaries of the Missouri, and we ascend its banks for nearly 400 miles before reaching the Yellowstone National Park. Its waters are clear, and, unlike the Missouri, it has a defined channel, which it preserves in spite of freshets. The valley is fertile, and many fine streams enter the main river, especially from the south, the chief of these being the Powder, the Tongue, and the Big Horn. In many places fringes of bluffs and buttes are seen, the latter being of similar fantastic forms to those in the "Bad Lands," farther east. The first exploration of the Yellowstone valley was made in 1806, when one of the returning parties of the famous Lewis and Clark expedition — the band led by Captain William Clark — descended the valley. In 1853 the government sent out an expedition, under command of the late General Stevens, to explore a northern route for a transcontinental railway; and subsequent to that date many expeditions went through this valley.

Miles City, named in honor of General Miles, is seventy-nine miles west of Glendive. It is a flourishing place of about 3,000 inhabitants, and the centre of a large cattle trade. Fort Keogh is two miles beyond. Forsyth, Big Horn, and Custer are stations farther west. At Big Horn the Northern Pacific crosses the river of the same name on a bridge 600 feet in length, and just beyond it pierces an intervening bluff by means of a tunnel 1,100 feet long. Pompey's Pillar, twenty-four miles west of Custer, is a mass of yellow sandstone about 400 feet high, on the side of which Captain William Clark, the explorer, carved his name July 25, 1806. Until within a few years, the Yellowstone valley and the neighboring country contained great numbers of buffalo; but the animals have for the most part been slaughtered or driven farther north. Billings, named in honor of the late Hon. Frederick Billings, a former president of the Northern Pacific Railroad, is a flourishing town 891 miles from St. Paul and 225 miles from Glendive. The place dates back only to the spring of 1882.

In passing up the valley west of Billings, the grand bulwarks of the Rocky Mountains begin to be seen. These snowy ranges are lofty, and at first are quite likely to be mistaken for clouds, so soft and ethereal do their white summits appear. The mountain wall extends across the west, and is also seen in the south. The views increase in beauty and grandeur as we approach the range. Park City is a small but growing place twenty-three miles west of Billings. Eighteen miles east of Livingston and seventy-four miles west of Park City are some hot springs which are known to possess curative properties. Livingston, 1,007 miles from St. Paul, is a lively and enterprising place, although not yet ten years old. It is charmingly situated at the base of the Belt Mountains, about midway between the Great Lakes and the Pacific Coast, and is the junction point of the main line of railway and the Rocky Mountain Railroad of Montana, or the Yellowstone National Park Branch, which is owned by the Northern Pacific corporation. We shall reach Livingston Tuesday evening, and our cars will be placed upon a side track to remain until morning.

Through the Upper Yellowstone Valley.

Leaving the main line of the Northern Pacific Railroad Wednesday morning, we shall turn southward and ascend the Yellowstone valley fifty-one miles farther, to Cinnabar, which lies only a short distance from the northern border of the National Park. We are now fairly in the mountain region, and the scenery of the upper valley is certainly magnificent — a fitting prelude to the wonders of the park. The railroad crosses the Yellowstone River at Livingston, where it makes an abrupt turn; and the branch line continues along its west bank. Passing through a narrow defile known as the Lower Cañon, we emerge into a fertile park thirty miles long and a dozen miles wide, through which the river flows. This tract is called Paradise valley, and contains

a number of fine farms or ranches. One of these ranches is given up chiefly to the raising of fine horses, and contains several thousand noble animals. The river makes many graceful curves, and is fringed with trees. Its clear waters abound in trout and grayling, and its surface is the haunt of myriads of water-fowl. The snow mountains border the valley on the south and east, rising 3,000 or 4,000 feet above the valley itself; while the western hills are of lesser elevation, but interesting on account of their evidences of volcanic action. A grand panorama of stately domes is constantly unfolding on the left, with the river and a beautiful intervale for a foreground. Along the valley and high upon its sides are many evidences of ancient glaciers. Dr. Archibald Geikie, the distinguished British geologist, found proofs that at the second cañon the Yellowstone glacier was from 800 to 1,000 feet deep. At the upper end of Paradise valley, the massive form of Emigrant Peak, 11,034 feet in height, becomes a prominent landmark. Above Paradise valley the river and the railway are crowded into a narrow gorge called the Middle Cañon. The stream here is not more than 100 feet wide. The scenery is wild and desolate. Some seven miles above the Middle Cañon is Cinnabar Mountain, a bold peak which probably acquired its name from a broad stripe of vermilion hue that girdles its cliffs. Certain it is that no cinnabar was ever found in the vicinity. On one face of the mountain are two enormous dikes of trap-rock, which have received the designation of the "Devil's Slide." Just south of this mountain, and near the junction of the Gardiner and the Yellowstone Rivers, lies the station of Cinnabar, the terminus of the railroad.

Conveyance is had from Cinnabar to Mammoth Hot Springs, a distance of seven miles, by Wakefield's stage line. The stage road formerly crossed a spur of Sepulchre Mountain, but its course has been changed for the better. It now follows up the west side of the Gardiner River, gaining, by an easier grade, the plateau on which the

Mammoth Hot Springs Hotel is situated, and above which the terraces built by the springs themselves rise. The hotel will be reached at about 1.00 P. M.

The Yellowstone National Park.

The reservation known as the Yellowstone National Park, set apart for public uses by an act of Congress passed in 1872, covers a tract of about sixty-five miles in length, from north to south, and about fifty-five miles in width, from east to west, lying chiefly in Northwestern Wyoming, and overlapping, to a small extent, the boundaries of Montana, on the north, and Idaho, on the west. This gives an area of 3,312 square miles, a tract that is nearly the area of the States of Rhode Island and Delaware combined, and nearly half as large as the State of Massachusetts. The name "park" is perhaps misleading, as it is exceedingly diversified, containing numerous parks or open tracts, as the name "park" has been bestowed in the mountain sections of Colorado, besides high mountains and beautiful lakes. The main Rocky Mountain chain — the true continental divide — crosses the southwestern portion in an irregular line, leaving by far the greater expanse on the eastern side. The least elevation of any of the narrow valleys is 6,000 feet, and some of them are from 1,000 to 2,000 feet higher. The mountain ranges which hem in these valleys are from 10,000 to upwards of 11,000 feet in height, Electric Peak (in the northwest corner of the park, not far back of Mammoth Hot Springs) having an elevation of 11,300 feet, and Eagle Peak, southeast of Yellowstone Lake, reaching the height of 11,000 feet. The latter is one of many high peaks in the southern part of the Absaroka range — so-called from the Indian name of the Crow Nation. This range has been popularly called the "Hoodoo Mountains." The Absarokas offer, for more than eighty miles, a bold, unbroken barrier — a rough, rugged country, dominated by high peaks and

crags from 10,000 to 11,000 feet in height. In the south part of the park, near Heart and Lewis Lakes, is Mount Sheridan, 10,200 feet high; and Mount Washburne, in the centre of the reservation, has an elevation of about 10,000 feet. The Gallatin range encloses the park on the north and northwest, lying west of the Yellowstone valley; the Snowy range, a spur of the Absarokas, lying east. Electric Peak is the highest of the Gallatin range, and Emigrant Peak the most prominent of the Snowy Mountains. The drainage of the park area is divided among three distinct systems — the Yellowstone River, which has about three fifths and runs in a sinuous course from the southeast to the northwest corner of the park, mainly through deep cañons, and the Madison and Snake Rivers, which have about one fifth each. The Yellowstone and Madison are tributary to the Missouri, and the Snake flows into the Columbia.

John Colter, or Coulter, who was connected with the Lewis and Clark expedition, and went back on his return in 1806 to hunt and trap on the headwaters of the Missouri, was probably the first white man who ever saw any of the springs or geysers in this wonderful region. After a narrow escape from the Blackfeet Indians, he lived for a number of years among the Bannocks, who ranged through the country in which the park is located. In 1810 he returned to St. Louis, and told wonderful tales of the region, which were not believed. "Coulter's Hell" was the name afterwards applied to this section by hunters and trappers. In 1844 James Bridger, the famous Rocky Mountain guide and scout, described some of the wonderful springs and geysers, but his stories were not credited. Later Captain John Mullan's report on the construction of a military road from Fort Walla Walla to Fort Benton, Captain W. F. Reynolds's report on the exploration of the Yellowstone River, and a letter of Captain Walter W. A. De Lacy, who in 1863 visited the Lower Geyser Basin, made mention of the geysers. The first extended account of the Yellowstone geysers was published in

1870, based on a visit in 1869 by David E. Folsom. In 1871 Dr. F. V. Hayden made his preliminary survey, the report of which prompted Congress to set aside the tract as a public park. Subsequent to that time Dr. Hayden and his assistants made further surveys of the region, and his twelfth annual report for 1878 (issued in 1883) gives the fullest information about the park yet published. The work begun under Dr. Hayden's direction has been continued under the charge of Major Powell, the present chief of the United States Geological Survey. For a number of years past Professor Arnold Hague has been engaged, with a corps of assistants, in a detailed examination of the park. The next Geological Report to be devoted to this region, embodying, as it will, the result of Professor Hague's recent work, will be invaluable. Contour maps of the park are in process of preparation.

The surveillance of the park is in the hands of the military, and the present superintendent is Captain F. A. Boutelle of the First Cavalry, a very efficient officer. The regulations against killing game, the use of firearms, negligence in leaving campfires, the removal of specimens, and the marring of formations are strict; but the public has reason to be thankful that they are so, since they tend to the maintenance of the animal life, and likewise to the preservation of the park wonders in all their beauty and fineness.

The Geological History of the Park Region.

The following extract from a paper by Professor Hague, read before the American Institute of Mining Engineers in July, 1887, gives succinctly the geological history of the park: "Throughout Tertiary time in the park area, geological history was characterized by great volcanic activity, enormous volumes of erupted material being poured out in the Eocene and Middle Tertiary, continuing with less force through the Pliocene, and extending into Quaternary time. Within very recent times there is no evidence

of any considerable outburst; indeed, the region may be considered long since extinct. These volcanic rocks present a wide range in chemical and mineral composition and physical structure. They may all, however, be classed under three great groups — andesites, rhyolites, and basalts — following each other in the order named. In some instances eruptions of basalt occurred before the complete extinction of rhyolite, but in general the relative age of each group is clearly and sharply defined; the distribution and mode of occurrence of each presenting characteristic and salient features, frequently marked by periods of erosion.

"Andesites are the only volcanic rocks which have played an important part in producing the present structural features of the mountains surrounding the park. As already mentioned, they occur in large masses in the Gallatin range, while most of the culminating peaks in the Absarokas are composed of compact andesites and andesitic breccias. On the other hand the andesites are not confined to the mountains, but played an active rôle in filling up the interior basin. That the duration of the andesitic eruptions was long continued, is made evident by the plant-remains found in ash and lava beds through 2,000 feet of volcanic material. The plants have as yet been too little studied to define positively their geological horizons. It is quite possible that they may indicate marked differences of climate between the lower and upper beds.

"In early Tertiary times a volcano burst forth in the northeast corner of the depressed area encircled by the Park Mountains, not far from the junction of the Absaroka and Snowy ranges. While not to be compared in size and grandeur with the volcanoes of California and the Cascade range, it is, for the Rocky Mountains, one of no mean proportions. It rises from a base about 6,500 feet above sea level, the culminating peak attaining an elevation of 10,000 feet. This gives a height to the volcano

of 3,500 feet from base to summit, measuring from the Archæn rocks of the Yellowstone valley to the top of Mount Washburne. The average height of the crater rim is about 9,000 feet above sea level, the volcano measuring fifteen miles across the base. The eruptive origin of Mount Washburne has long been recognized, and it is frequently referred to as a volcano. It is, however, simply the highest peak among several others, and represents a later outburst, which destroyed in a measure the original rim and form of the older crater. The eruptions for the most part were basic andesites. Erosion has so worn away the earlier rocks, and enormous masses of more recent lavas have so obscured the original form of the lava-flows, that it is not easy for the inexperienced eye to recognize a volcano and the surrounding peaks as the more elevated points in a grand crater wall. By following around on the ancient andesitic rim, and studying the outline of the old crater, together with the composition of the lavas, its true origin and history may readily be made out. . . . This old volcano of early Tertiary time occupies a prominent place in the geological development of the park, and dates back to the earliest outbursts of lava, which have in this region changed a depressed basin into an elevated plateau.

"After the dying out of the andesitic lavas, followed by a period of erosion, immense volumes of rhyolite were erupted, which not only threatened to fill up the crater, but to bury the outer walls of the volcano. On all sides the andesitic slopes were submerged beneath the rhyolite to a height of from 8,000 to 8,500 feet. This enormous mass of rhyolite, poured out after the close of the andesitic period, did more than anything else to bring about the present physical features of the park table-land. A tourist making the customary trip through the park, visiting all the prominent geyser basins, hot springs, and the Grand Cañon and Falls of the Yellowstone, is not likely to come upon any other rock than rhyolite, excepting, of course, deposits from the hot

springs. . . . A description of the rhyolite region is essentially one of the park plateau. Taking the bottom of the basin at 6,500 feet above sea level these acidic lavas were piled up until the accumulated mass measured 2,000 feet in thickness. It completely encircled the Gallatin range, burying its lower slopes on both the east and west sides; it banked up all along the west flanks of the Absarokas, and buried the outlying spurs of the Teton and Wind River ranges. . . .

"That the energy of the steam and thermal waters dates well back into the period of volcanic action, there is, in my opinion, very little reason to doubt. . . . Although the rhyolite eruptions were probably of long duration and died out slowly, there is, I think, evidence to show that they occupied a clearly and sharply defined period between the andesites and basalt eruptions. Since the outpouring of this enormous body of rhyolite and building up of the plateau, the region has undergone profound faulting and displacement, lifting up bodily immense blocks of lava, and modifying the surface features of the country. Following the rhyolite came the period of basalt eruptions, which, in comparison with the andesite and rhyolite eras, was, so far as the park was concerned, insignificant, both as regards the area covered by the basalt and its influence in modifying the physical aspect of the region. . . . After the greater part of the basalt had been poured out, came the glacial ice, which widened and deepened the preëxisting drainage channels, cut profound gorges through the rhyolite lavas, and modeled the two volcanoes into the present form. . . . Since the dying out of the rhyolite eruptions, erosion has greatly modified the entire surface features of the park. Some idea of the extent of this action may be realized when we recall that the deep cañons of the Yellowstone, Gibbon, and Madison Rivers — cañons in the strictest sense of the word — have all been carved out since that time. To-day these gorges measure several miles in length and from 1,000 to 1,500 feet in depth. . . .

"Since the close of the ice period no geological events of any moment have brought about any changes in the physical history of the region other than those produced by the direct action of steam and thermal waters. A few insignificant eruptions have probably occurred, but they failed to modify the broad outlines of topographical structure, and present but little of general interest beyond the evidence of the continuance of volcanic action into Quaternary times. Volcanic activity in the park may be considered as long since extinct. At all events, indications of fresh lava-flows within historical times are wholly wanting. This is not without interest, as evidence of underground heat may be observed everywhere throughout the park in the waters of the geysers and hot springs. All our observations point in one direction, and lead to the theory that the cause of the high temperatures of these waters must be found in the heated rocks below, and that the origin of the heat is in some way associated with the source of volcanic energy. It by no means follows that the waters themselves are derived from any deep-seated source; on the contrary, investigation tends to show that the waters brought up by the geysers and hot springs are mainly surface waters which have percolated downwards to a sufficient distance to become heated by large volumes of steam ascending through fissures and vents from much greater depths."

In discussing the antiquity of the geysers, Professor Hague gives some figures based on the ascertained growth of deposit around Old Faithful, and draws the conclusion that its measured thickness of seventy feet must have required 25,000 years to reach its present development. He adds: "This gives us a great antiquity for the geyserite, but I believe that the deposition of the siliceous sinter in the park has been going on for a still longer period of time." The number of geysers, hot springs, mud-pots, and paint-pots scattered over the park exceeds 3,500, according to the same

authority; and, if to these be added the fumaroles and soltafaras, from which issue in the aggregate enormous volumes of steam and acid and sulphur vapors, the number of active vents would in all probability be doubled.

The Mammoth Hot Springs.

We shall make two visits to the Mammoth Hot Springs,— before and after the tour of the park,— so that there will be ample time to inspect the wonders of the region. The springs have built up a series of remarkable terraces on the west side of a little plateau, or basin, 1,000 feet above the Gardiner River, into which their waters flow. On the opposite side of the river rises the long, rugged mass of Mount Evarts, which has an elevation of 7,600 feet, or 1,213 feet higher than the plateau. The whole plateau and the steep slopes extending down to the river are mainly composed of calcareous deposits, resulting from springs and geysers now extinct. There are no active geysers at the present time in this basin; but two large cones of extinct geysers stand at no great distance from the hotel, and are almost the first objects to attract attention. These are Liberty Cap, an isolated shaft forty-five feet in height and twenty feet in diameter at its base, and Giant's Thumb, or Liberty Cap No. 2, about 100 yards distant, and smaller. Both show signs of considerable age, and are gradually crumbling away. All around are a number of shallow basins; and in other parts of the plateau are cavities and caverns, from which hot springs probably flowed at some period more or less remote. The beautiful terraces, now in process of formation just below the active springs, are the most interesting objects to be seen, however. The recent deposits, on which the springs are at present situated, occupy about 170 acres. The rocks upon which the deposits are found belong to the Middle and Lower Cretaceous and Jurassic formations. Beneath the Jurassic rocks there are probably carboniferous limestones, from whence come the carbonic acid and carbonates

that exist in the water of the springs. The springs at present are mainly on two masses of deposit, and these are arranged in terraces, of which there may be said to be four principal ones with subdivisions. Dr. A. C. Peale (in Part II. of Hayden's *Twelfth Annual Report*) enumerates fifty-two different springs in this district, which have a temperature varying from 63 to 165 degrees Fahrenheit. The terraces are a succession of beautiful basins, over the rims of which the water falls in gentle rivulets and miniature cascades. The deposits, which result from evaporation, at the margin of each basin, are exquisite in form and color. The rims and walls present the most delicate arabesques, and fretted stalactites depend from the edges. A rounded pulpit, seemingly supported by a series of columns, has been formed in one place. Rich cream and salmon tints predominate, but these deepen into shades of red, brown, green, and yellow; while the turquoise blue of the waters affords a striking contrast of color. The main springs are in a pool, or a succession of three pools, 100 feet wide and 200 feet long. Dr. Hayden, in his *Report* for 1871, thus describes the general view of the springs: "The wonderful transparency of the water surpasses anything of the kind I have ever seen in any other portion of the world. The sky, with the smallest cloud that flits across it, is reflected in its clear depths; and the ultramarine colors, more vivid than the sea, are greatly heightened by the constant, gentle vibrations. One can look down into the clear depths, and see with perfect distinctness the minutest ornament on the inner sides of the basins; and the exquisite beauty of the coloring and the variety of forms baffle any attempt to portray them either with pen or pencil. And then, too, around the borders of these springs, especially those of rather low temperature, and on the sides and bottoms of the numerous little channels of the streams that flow from these springs, there is a striking variety of the most vivid colors. I can only compare them to our most brilliant aniline dyes — various shades

of red, from the brightest scarlet to a bright rose tint; also yellow, from deep, bright sulphur, through all the shades to light cream color; there are also various shades of green, from the peculiar vegetation. These springs are also filled with minute vegetable forms, which, under the microscope, prove to be diatoms, among which Dr. Billings discovers *Palmella* and *Escillara*. There are also in the little streams that flow from the boiling springs great quantities of a fibrous, silky substance, apparently vegetable, which vibrates at the slightest movement of the water, and has the appearance of the finest quality of Cashmere wool. When the waters are still, these silken masses become encrusted with lime, the delicate, vegetable threads disappear, and a fibrous, spongy mass remains, like delicate snow-white coral." One of the most beautiful springs of all has been named the Cleopatra. In the edge of the forest above the plateau, and near the old road up Terrace or White Mountain, is a beautifully tinted mound called the Orange Geyser. The geyser in this instance, however, is only a boiling spring, similar to the misnamed geysers of California. The waters of some of these springs nearest the hotel are utilized for bathing.

There are several hot springs within a few feet of the Gardiner River; and the feat of catching trout in the pure, cold stream, and boiling them in the neighboring spring before they are detached from the hook, may actually be performed. In a depression above the spring formations is a little lake, containing both hot and cold springs. There are several falls upon the Gardiner River, the finest being upon the Middle Fork, about four miles distant from the hotel. These falls are 140 feet high, and are in a cañon 1,200 or 1,500 feet deep. Near at hand are Bunsen Peak (8,775 feet) and the bold Sheepeater Cliffs. The latter take their name from a tribe of Indians that is supposed to have once inhabited this part of the park, and to have lived chiefly upon the mountain sheep, which still abound on Mount Evarts and in other secluded places.

On the Road to the Geysers.

Leaving the hotel at Mammoth Hot Springs Thursday morning, the parties will proceed to the Lower Geyser Basin, a distance of forty miles. This journey and the subsequent trips about the park will be made in comfortable spring wagons. The road completed by the government a few years since, from the springs up the Gardiner River Cañon, and through the Golden Gate to Swan Lake, will be taken; and the steep ascent of Terrace Mountain, which was formerly necessitated, will be avoided. Emerging upon the elevated plateau near the pretty little sheet of water known as Swan Lake, which forms one of the numerous sources of the Gardiner, a fine view is had of the Gallatin range. These mountains occupy a considerable area in the northwestern section of the park, the prominent peaks being Quadrant Mountain (19,127 feet), Bell's Peak (10,331 feet), and Mount Holmes (10,528 feet). Bunsen Peak, which we have left behind us, and also Electric Peak, Sepulchre Mountain, and Cinnabar Mountain belong to the same range. Near the crossing of the Middle Fork of the Gardiner is an old Indian trail which the Bannocks formerly used. Willow Park is the name given to a little region which has often served as a camping-place, and not far beyond are the famous Obsidian Cliffs and Beaver Lake. There is a ridge 1,000 feet in length, and from 150 to 250 feet in height, rising in almost vertical columns from the eastern shore of the little lake. This mass is composed of volcanic glass; and, when it was found advisable to construct a carriage road along its base, the only practicable way of operation was to build huge fires upon the largest masses, and, after they had been expanded by the heat, to dash cold water upon them. This had the effect of fracturing the blocks into fragments, so that they could be removed. Smaller blocks of obsidian are found in other parts of the park. Beaver Lake was formerly

the home of a numerous colony of those industrious little animals, and around its wooded shores are many hot and cold springs. The road flanks the lake for a mile or so, skirts the alum waters of Green Creek, and then crosses the divide which separates the waters of the Gardiner River, which flow into the Yellowstone, from those of the Gibbon River, which find their way into the Madison. There are a number of pretty little lakes near the road north of the Norris or Gibbon Geyser Basin.

The Norris or Gibbon Geyser Basin.

This is the first of the true geyser sections reached in entering the park by this route. The Gibbon River was named by Dr. Hayden in 1872, in honor of General John Gibbon, who had partially explored it; and the discoverer of the Geyser Basin (in 1875) was Mr. P. W. Norris, then superintendent of the park. This basin is the highest in the park, its elevation being 7,257 feet above the ocean level; and it covers an area of about six square miles. There are numerous springs of water and mud and a few veritable geysers, the chief of these being the New Crater and the Monarch. The former broke out with great force last spring. Dr. Peal enumerates ninety-seven springs of various kinds within this basin. The peculiarities here noticed are the absence of any very great accumulation of deposits, the newness of some of the important geysers, and the abundance of iron and sulphur. The Monarch is a powerful geyser which is in eruption once in about every twenty-four hours. It emits a stream to the height of about 100 feet. The Hurricane is a fierce, roaring spring that is expected to develop into a geyser, and the Growler is the significant name of another vigorous steam and water vent. The Minute Man is a small geyser near the road.

Gibbon Falls.

The road from the Norris Basin southward crosses a ridge, and, descending therefrom to the Gibbon Meadows, or Elk Park, soon enters the wild cañon of the Gibbon River. A new road has been constructed, forming a continuation of the old route along the river bank. This follows the river to a point below the picturesque Gibbon Falls, and is eventually to be extended to the Firehole Basin (or Lower Geyser Basin), thus avoiding a series of difficult hills. The falls, which are eighty feet in height, are seen to a great advantage from the new roadway, which at this point occupies a high perch directly in front of the cataract.

The Lower Geyser Basin.

The hotel in the Lower Geyser Basin (or at the Forks of the Firehole, as the region is also designated) will be reached at a seasonable afternoon hour. This basin is a wide valley, with an area of between thirty and forty square miles, having an elevation of 7,150 feet, or only 90 feet less than the Upper Geyser Basin, from six to ten miles distant. Above this, the surrounding plateau rises from 400 to 800 feet, the slopes being heavily timbered. In this section Dr. Hayden's party found 693 springs, including the Egeria Springs of the Midway Basin, among which the Excelsior Geyser and Prismatic Lake are counted. The chief points of interest visited by tourists are the Fountain Geyser and Mammoth Paint Pots, which are situated near each other. The Fountain is a very handsome geyser, and is in eruption four times daily. The Paint Pots constitute one of the chief wonders of the park. In a crater forty feet or more in diameter, there are numerous mud springs, in which the material cast forth has the appearance of paint of different shades. The pasty material is exceedingly fine to the touch, and, as it bubbles up, generally assumes for a moment some floral form. A mile or so distant easterly, but difficult of access, is another

group of geysers and springs, including the Great Fountain, one of the most powerful geysers in the park. It is in eruption every forty-six hours, and throws water to the height of from 125 to 150 feet.

The Excelsior Geyser and Prismatic Lake.

In the ride between the Lower and Upper Basins, a halt will be made in the Midway Geyser Basin for the purpose of inspecting the great Excelsior Geyser, Turquoise Spring, and Prismatic Lake, all of which lie on the west bank of the river. The Excelsior, the largest geyser known in the world, was in a state of great activity during 1888, after a period of inaction lasting about six years. The eruptions occurred at intervals of about an hour, and were very powerful. A great dome of water, often accompanied by lavatic stones, was thrown into the air to a height of between 200 and 300 feet, while the accompanying column of steam rose 1,000 feet or more. Early in 1889 the geyser again ceased action, but in 1890 it resumed its work, with diminished force. Nevertheless, its eruptions, which occurred every two hours, were grand spectacles. The crater is an immense pit 330 feet in length and 200 feet in width at the widest part, the cliff-like and treacherous walls being from fifteen to twenty feet high from the boiling waters to the surrounding level. The name of Cliff Cauldron was given it by the Hayden Survey in 1871, and it was not until some years later that it was discovered to be a powerful geyser. Hell's Half Acre is another expressive title given to this terrible pit. Two rivulets pour forth from the cauldron and from the neighboring springs, and the deposits along their channels are very brilliantly colored.

The Turquoise Spring, near the Excelsior, is beautiful in its rich tints of blue, and Prismatic Lake, also near at hand, is another wonderful display of color.

The Upper Geyser Basin and its Wonders.

In a nearly level tract inclosed by low hills, with the Firehole River flowing through it and mainly upon the east side, are found the chief geysers of this marvelous region.

The basin has an area of about four square miles and a general elevation of 7,372 feet. Dr. A. C. Peale (in Hayden's *Report*) enumerates 440 springs and geysers within this territory, including twenty-six distinct geysers. These figures resulted from only a partial survey of the region. Professor Hague gives the names of forty-nine geysers, some of which, however, are of small account. The Upper Basin group includes, with others, the following: Old Faithful, Castle, Bee Hive, Giant, Giantess, Grotto, Grand, Oblong, Splendid, Comet, Fan, Riverside, Young Faithful, Turban, Saw Mill, Lion, Lioness, and the Cubs. These are scattered over the surface of the basin, chiefly along the river bank, Old Faithful being at the southern extremity, and the Fan and Riverside at the northern end, near where the wagon road enters the basin. The Grotto, Giant, Oblong, and Castle are near the road. The Bee Hive, with its handsome cone, from which the geyser takes its name, together with the Giantess and the Lion group, is upon the opposite side of the river from the hotel. The Giant and Grand were inactive for one or two years, and last year began playing again. Many beautiful springs are in proximity to the geysers, forming objects of interest second only to the mammoth fountains of hot water. The springs have generally great depth and clearness, and the beholder can examine minutely the delicate formations far beneath the surface. The edges are in many cases scalloped and variously tinted, causing the deep blue spring and its exquisitely colored border to resemble a mammoth flower. One spring bears the appropriate name of the Morning Glory. Another very beautiful spring is situated quite near the Castle Geyser. There is no time

when the subterranean forces are inactive, and the Upper Geyser Basin at all times presents a strikingly weird scene. Strange sights and sounds greet the visitor on every side. Clouds of steam arise from a dozen different localities, some of the springs being hidden in the timber which covers the neighboring mountain-sides. In the vicinity of the geysers, there are hissing, gurgling, and thunderous thuds, as if the imps of the infernal regions had heavy contracts of labor to perform. The eruption of any of the great geysers is heralded by the escape of steam from an adjacent steam vent; and directly after a fountain of hot water is thrown into the air with fearful belchings, to fall again in a giant cataract. Almost constantly there is a display of some kind going on, and the strange din is kept up night and day. There are daily eruptions of some of the geysers, while others have longer intervals of quiescence.

Old Faithful is the most famous of all the Yellowstone Park geysers, the frequency and regularity of its eruptions having afforded opportunities for careful observation and record. It is situated on a little mound of geyserite about a dozen feet high and about 700 feet from the river. The chimney or crater has an oblong opening, measuring two by six feet inside. This slopes inward, and is the top of a basin about five feet deep, at the bottom of which is an irregular orifice, the head of the geyser tube. The inside of the basin is of a dark yellow or rusty color. The eruptions of Old Faithful occur at intervals of from fifty-two to eighty minutes, and last from three to five minutes, a column of water being thrown to the height of from 100 to 150 feet. Dr. Peale's measurements give an elevation of 135 feet. The eruption begins with some preliminary splashes, or spurts, from three to a dozen or more in number. These continue about four minutes, becoming more and more powerful, when they are followed by a rapid succession of jets, which escape with a roar, and soon attain the maximum height. A column of steam ascends three or four

times the height of the stream of water. The geyser received its name from Mr. N. P. Langford in 1870.

The Bee Hive was also named, like most of the other geysers, by the Washburne exploring party in 1870. It stands about 100 feet from the river. The cone is three feet in height, almost circular, and has a circumference of twenty feet at the base. The top measures three by four feet, and the opening is two by three feet. The cone is beautifully coated with beaded silica, in places of pearly aspect. There is no surrounding terraced deposit, for the reason that little water falls upon the ground in the vicinity. A line dropped into the tube reaches a depth of twenty-one feet, which only marks the straight course of the throat of the geyser. Just outside the cone are several vents, or steam holes, one of which acts as a sort of preliminary vent, or signal, for the eruption of the geyser. The eruption of the Bee Hive, which occurs at irregular intervals, is a magnificent spectacle. The water and steam escape in a steady stream for from two to five minutes, and the column of water reaches a height of from 170 to 219 feet. The force is very great, and the ground is shaken during the action of the geyser.

The Giantess is situated about 400 feet back of the Bee Hive, and is the largest geyser in the Upper Basin. Its intervals between eruptions are about fourteen days, and an immense column of water is projected to a height of between 100 and 200 feet. The crater, or basin, which is usually filled with boiling water, is irregular in shape, being thirty-four feet in its greatest length, and twenty-four feet in its widest portion. It has been measured with a line to the depth of sixty-three feet. Up to 1878 only four eruptions of this geyser had been witnessed.

Not far from the Bee Hive and Giantess is a group of small geysers called the Lion, Lioness, and Two Cubs. These names were given on account of the fancied similarity

of the cones to animal forms. Professor Comstock named the same group the Trinity, and Dr. Peale called the principal one Niobe. The height of the stream is about seventy-five feet in the largest geyser of the group, and sixty feet in the second largest.

The Castle Geyser has the most imposing crater in the Upper Basin, and was so named by Langford and Doane in 1870, on account of its striking resemblance to the ruins of a feudal castle. It is on the summit of a mound of white and gray deposit that covers about three and a half acres. On this mound, 400 feet from the river, is a sort of platform composed of laminated geyserite 100 feet long, seventy-five feet wide, and three feet high, from which rises the castellated turret or cone. This is nearly twelve feet high, with an irregular contour, the circumference at the base being about 120 feet, and at the top about sixty feet. The orifice of the geyser tube is three feet in diameter, nearly circular, and is lined with large beaded globular masses of a dull orange color. Steam is almost constantly escaping, and jets of water occasionally spurt above the cone; but the grand eruptions are said to occur at intervals of about forty-eight hours. The height of the stream, as recorded by observers in late years, varies from thirty to 100 feet; but the Earl of Dunraven, who witnessed an eruption in August, 1874, records that the water reached an elevation of 250 feet. He considers it the grandest geyser in the region. One hundred and fifty feet north of the Castle is the beautiful Blue-Crested Spring. The basin of the spring is a trifle over nineteen feet in diameter, and it is bordered by a scalloped ring six inches in height, adorned with pearl-like nodules. Its depth is forty-four feet, and the water is transparent and ethereally blue.

Below the Castle, on the east side of the river, are the Grand (so named by Dr. Peale in 1871) and the Turban. Around the mouths of both these geysers, and especially the latter, are large, cushion-like masses of geyserite. The basin is fifty-two

feet in diameter, and slightly depressed, and the orifice of the Grand is two by four feet. The intervals between the eruptions are from seventeen to thirty-one hours.

The Giant is upon the left or west bank of the Firehole, and near the roadway. Its cone resembles a huge stump with one side broken out, the fracture having resulted from some especially powerful eruption. It is ten feet high, and the orifice is about five feet in diameter. The intervals between its eruptions were formerly about four days, and the great fountain played sometimes for three hours or more, to a height of from 130 to 250 feet. It ceased regular action in March, 1886. There are several small geysers in the vicinity, including Young Faithful.

Near at hand, too, is the Oblong Geyser, which was thought by the early explorers to be merely a hot boiling spring. Here an oblong pool, fifty feet in length by thirty-one in width at one extremity, and twenty-one feet at the other, is tossed bodily into the air in a splashing mass, to an elevation of ten or fifteen feet. The eruptions are said to take place once or twice daily.

Not far below the Giant and Oblong is the famous Grotto, one of the most interesting of all the geysers. The double cone is eight feet high, fifty-three feet long, and twenty-six feet wide, and is hollowed into fantastic arches, beneath which are grotto-like cavities that act as lateral orifices during an eruption. There are two vertical orifices — one, two by six feet, and the other, three by five feet. The eruptions consist of two well-defined columns alternating with each other, the arches serving to break the water into sprays. Near one of the openings a pillar-like mass of geyserite rises to a height of about six feet. The Grotto is in action several times a day.

The Splendid and Comet are two geysers situated in the White Pyramid group, west of the Giant. Both sometimes play together, the column of the former reaching an altitude of about 150 feet, and the latter spurting obliquely into the other.

The eruptions of the Splendid take place about every three hours, and last from four to ten minutes. The White Pyramid is an old geyser cone; not far from it is a boiling spring known as the Devil's Punch Bowl, and west of the latter lies Specimen Lake.

The Fan and Riverside are on the east bank of the river, near the bridge. Both play three times daily. The Fan has an orifice which discharges two radiating jets about sixty feet. The Riverside plays across the river, and its displays constitute one of the prettiest geyser exhibitions to be seen in the park. The Mortar is near the Fan. The Silver Globe group of springs and geysers is a mile below the bridge, west of the river. The Solitary is at the edge of the timber, half a mile south of the hotel. It is chiefly remarkable on account of its pearl-like formations about its margin. There are other geysers in the vicinity which are seldom visited on account of the distance or inaccessibility. The chief of these is the Lone Star, about four miles distant, which is in eruption at intervals of twenty minutes. Its distinguishing feature is a cone of great size and beauty.

The Theory of Geyser Action.

Herschell, Bunsen, Comstock, McKenzie, and other scientists have advanced theories as to geyser action, and that of Bunsen is generally accepted in the main. The presence of igneous rocks which still retain their heat at a considerable distance below the surface, and the admission of water to subterranean apertures, or tubes, seem to be the requisite conditions to produce a geyser. This word, by the by, is derived from the Icelandic word *geysa* — to gush. Steam is formed within caverns or chambers partly filled with water; and a column of water, as well as the steam itself, is driven out

through the tube. Intermittent geyser action may result from curvatures in the tube, deposits of water being left in the depressions from previous upheavals, to await the next discharge, the intervals between the eruptions being governed by the size of the chambers wherein the steam is generated, conditions of temperature, etc. It has been noticed that geysers occur where the intensity of volcanic action is decreasing. In the neighborhood of active volcanoes, such as Vesuvius, the temperature appears to be too high, and the vapor escapes as steam from what are called *stufas*. When the rocks are more cooled, the water comes forth in a liquid form. Says Dr. Peale in *Science* (July 27, 1883): "It is probable that all geysers are originally due to a violent outbreak of steam and water, and that the first stage is that of a huge steam vent. Under such conditions, irregular cavities and passages are more likely to be formed than regular tubes. The lining of the passages and tubes takes place afterward, and is a slow process. Whether the subterranean passages in which the water is heated are narrow channels, enlargements of tubes, or caverns and tubes, is probably of little consequence, except as the periods or intervals of the geyser are influenced. If water in a glass tube be heated rapidly from the bottom, it will be violently expelled from the tube; or, if boiled in a kettle that has a lid and a spout, either the lid will be blown off or the water will be forced out of the spout. In the first case we have an explanation, in part, at least, of Bunsen's theory; and the second exemplifies the theories which pre-suppose the existence of subterranean cavities and connected tubes. The simpler the form of the geyser tube, the less is the impediment to the circulation of the superheated water; and in this fact lies the explanation of the difference between constantly boiling springs and geysers. The variations and modifications of the subterranean water passages, however, must be important factors entering into any complete explanation of geyseric action."

From the Upper Geyser Basin to Yellowstone Lake.

Resuming our wagon journey through the park, we first retrace our way to the Lower Geyser Basin. From that point we ascend the East Fork of the Firehole, or Nez Perces Creek, for a distance of ten miles, fording the stream several times. The creek is fed largely by hot springs. Beaver abound here, as well as in the river below the hotel at Lower Geyser Basin, and several times have damned up the creek to an extent that has made labor for the road builders. On leaving the creek we cross the high divide between the Madison River system and the Yellowstone River. As the heights are climbed, a beautiful panorama of forest and mountain scenery unfolds itself to view. The serrated wall of snow peaks forming the Gallatin and Madison ranges are prominent features in the outlook. After passing through some noble forests, Mary's Lake, a silvery sheet of water fed by alkaline springs, is reached at an altitude of 8,336 feet. Descending the east slopes into Hayden valley, a name that has been given to the Yellowstone drainage area lying between the lake and the falls, some magnificent views are had of Mount Washburne, which rises in the south, and nearly in the centre of the park, to the altitude of 10,346 feet, and of its near neighbor, Dunraven Peak (9,988 feet). Elephant's Back, as the ridge lying between the trail and the lake is known, hides for the most part the high summits lying in the southeasterly part of the park. Hot springs, some of which are strongly impregnated with sulphur, and many of which are boiling mud of various colors, dot the surface of Hayden valley, and steam is seen rising in almost every direction. The dinner station is situated at Trout Creek, a pure, crystal stream that winds along the upper reaches of the valley.

On approaching the Yellowstone River, the road forks, one branch going northward to the Falls and Grand Cañon, and the other southward to the lake. We take the

latter route, and ride for about eight miles farther, at no great distance from the river. An object of especial interest on this part of the road is the Mud Geyser or Giant Cauldron. A circular pit, or crater, is seen in the side of a hill west of the roadway. The pit is about twenty feet in depth; and on one side, at the bottom, is a cavernous opening, from which waves of mud are emitted with great force. There was formerly a vigorous mud geyser on the opposite side of the road, a short distance beyond.

Yellowstone Lake.

Yellowstone Lake, the largest body of water in North America at this altitude (7,741 feet), and one of the largest in the world at so high an elevation above sea level, presents a superficial area of 139 square miles, and a shore line of nearly 100 miles. It is shaped roughly, like an outspread hand, with a clearly defined though overgrown thumb, but with hardly the regulation number of fingers. The outlet is at the wrist, and the new hotel is pleasantly situated a short distance therefrom. It occupies a bold bluff upon the shores of the lake, and overlooks a wide expanse of its fair surface and the beautiful mountains beyond. The lofty summits in the southward extension of the Absarokas, culminating in Mounts Doane, Langford, Stevenson, Silver Tip, Chittenden, and Cathedral Peak,— all over 10,000 feet high,— and Eagle Peak, — which rises to the still greater height of 11,100 feet,— occupy the southeast corner of the park reservation beyond the lake. These and other beautiful peaks are seen at a distance of twenty miles or more, as the Savoy Alps are viewed across Lake Lucerne. Indeed, the resemblance between Yellowstone Lake and the Swiss lakes is quite marked. Southward are seen Mount Hancock and Mount Sheridan, the latter showing over the right shoulder of Flat Mountain. There are several islands in the lake; and the eastern shores, which are plainly in sight, are very romantic and inviting.

Between two and three miles from the hotel is the Natural Bridge, which has been worn out by a little stream descending from the mountains to the lake; and at the Thumb, seventeen miles distant, is another group of geysers.

On leaving the hotel at the lake, we shall descend the Yellowstone valley to the Falls and Grand Cañon, about seventeen miles distant. We first retrace our way to the point where we approached the Yellowstone River from Hayden valley. This is about midway on our route. Not far north of this place is Sulphur Mountain, a deposit of almost pure sulphur 100 feet high. At the base of the hill, and near the road, is a sulphur spring which boils and surges furiously. There are several other springs in the vicinity.

The Yellowstone Falls.

The new hotel is situated upon an elevated plateau west of the Grand Cañon of the Yellowstone, and about half a mile from the Lower Fall. It is one of the best-appointed hotels in the park, and has good accommodations for a much larger number of guests than the old house.

For miles above the Upper Fall the river flows in a strong and steady current between low and grass-covered banks. A few hundred yards above the first cataract three isolated and water-worn rocks tower above the waters like the piers of some ancient bridge. At the head of the fall the river has a width of about eighty feet, and the waters plunge over a shelf, between walls that are from 200 to 300 feet in height, upon a partially submerged reef 109 feet below. Dense clouds of spray and mist veil fully one third of the cataract from view.

Half a mile below this fall is the Lower or Great Fall, which is grander and more impressive than the other, though not more picturesque. Here the waters pour into the fearful abyss of the Grand Cañon, the sheer descent being 308 feet. The wooded

slopes of the gorge tower far above the flood, and one has to descend a steep incline to reach a platform which serves as a good view point at the verge of the fall. The best views, however, are had from the banks below, where many jutting points afford an outlook upon the wonderful cañon. Clouds of mist ascend from the foot of the falls, and the walls are covered with a rank growth of mosses and *algæ*.

Midway between the two falls the road crosses Cascade Creek, which flows down to the Yellowstone from the slopes of Mount Washburne. There are here three beautiful little falls known as the Crystal Cascades, 129 feet in height; and directly beneath the bridge is the Grotto Pool.

The Grand Cañon of the Yellowstone.

Of the purely topographical features of the Grand Cañon of the Yellowstone, Mr. Henry Gannett (in Hayden's *Twelfth Annual Report*) says: "Commencing at the falls, it extends down nearly to the mouth of the East Fork, a distance, as the river flows, of twenty-four miles. Indeed, from the falls to the mouth of Gardiner's River the Yellowstone is in a continuous cañon; but the partial break at the mouth of the East Fork separates it into two parts, known as the Grand and the Third Cañons. The former occupies the line of greatest depression in a volcanic plateau, which slopes to the northward and southward from the Washburne group of mountains, and to the westward from the Amethyst Ridge of the Yellowstone range. Its course is northeast as far as the extremity of the Washburne group; and after passing that it turns north, with a very slight inclination west. The height of the plateau at the falls is about 7,800 feet. It increases slightly northeastward, until, in passing the mountains, it has an elevation of about 8,000 feet. Thence northward it decreases in height rapidly, and at the mouth of Tower Creek it reaches but 7,200 feet. At the head of

the Upper Fall the river level is but a few feet below the top of the plateau. This fall adds 112 and the lower fall 300 feet to the depth of the chasm. From the foot of this fall to the mouth of East Fork the total descent is 1,304 feet in a distance of twenty-four miles, being an average of 54.3 per mile. As far as the extremity of the Washburne Mountains, a distance of twelve miles, the cañon continues to increase in depth, both by the fall of the stream and the rise of the plateau; and the extreme depth, 1,200 feet, is attained at this point. Thence the depth decreases rapidly, and at the mouth of Tower Creek it is but 500 or 600 feet deep on the west side, and about 1,000 feet on the east side. The width of the cañon at the top varies from one fourth of a mile to one mile; and the angle of slope of the walls from the top to the water's edge ranges from 45 degrees to 75 degrees, with a horizontal line."

These are the cold topographical facts and figures regarding this greatest of all the park marvels, and they are quickly forgotten when the beholder gazes down into the gigantic rift. Neither pen nor pencil can do justice to its stupendous grandeur or its marvelous coloring, wherein it differs essentially from any similar scenic feature of the world's diversified surface. The mountainous region of Colorado has deeper cañons, while the Grand Cañon of the Colorado River, in Northern Arizona, has twice and thrice its depth; but they cannot be compared in impressive beauty with the marvelously pictured rift through which the Yellowstone winds its way after its last grand leap. A narrow trail runs along the western edge, and there are many jutting points from which new vistas are opened through this enchanted land. The walls are in places perpendicular, though generally sloping; while at the bottom is the fretted and fuming river, a ribbon of silvery whiteness or deep emerald green. Along the bottom of the cañon are domes and spires of colored rock, some of them hundreds of feet in height, yet reduced to much smaller proportions by the distance. On the apex

of one of these pillars is an eagle's nest. In one place, near the top, a great rock spire, twice as high as Trinity steeple, has split away from the mass of rock behind it, and seems to be ready to topple over into the abyss at any moment, so insecurely is it poised on the shallow shelf beneath. But the gorgeous coloring of the cañon walls is its distinguishing feature. The beholder is no longer left in doubt as to the reason for bestowing the name of Yellowstone upon this remarkable river. The beautifully saffron-tinted walls give the explanation. There are other tints in opulence. Crimsons and greens are seen with all their gradations and blendings. Emerald mosses and foliage form the settings for dashes of bright rainbow colors. The yellows, due to sulphur deposits, predominate; but the oxidation of iron through the many hot springs, which send up their clouds of steam even here, provides a liberal sprinkling of reds. It seems as if a gorgeous sunset or a shattered rainbow had fallen into the abyss. With the grand grouping of crags and pinnacles, tinted walls, and the beautiful falls, the picture is one that once seen can never be forgotten. Says the Rev. Almon Gunnison (in *Rambles Overland*): "Language is but a clumsy thing with which to paint the glories of this wonder-place. The richest pigments of artists of largest fame have failed; and while men have smiled at the flaming canvas, and said, 'It is impossible,' the baffled painter has grieved that his poor brush had failed to tell half the story of this exceeding loveliness."

M. M. Ballou, in *The New Eldorado*, gives the following animated word picture of the scene as viewed from below the fall: "The grouping of crags, pinnacles, and inaccessible points is grand and inexpressibly beautiful. Eagles' nests with their young are visible at eyries quite out of reach save to the monarch bird itself. On other isolated points far below us are seen the nests of fish-hawks, whose builders look like swallows in size as they float upon the air, or dart for their prey into the swift,

tumultuous stream that threads the valley. Gazing upon the scene, the vastness of which is bewildering, a sense of reverence creeps over us, a reverence for that Almighty hand whose power is here recorded in such unequaled splendor. At last it is a relief to turn away from looking into this sheer depth and reach a securer basis for the feet. Still we linger until the sunset shadows lengthen and pass away, followed by the silvery moonlight. Every hour of the day has its peculiar charm of light and shade as seen upon the cañon and its churning waters."

Dr. Hayden says in one of his reports: "No language can do justice to the wonderful grandeur and beauty of the cañon below the Lower Falls, the very nearly vertical walls slightly sloping down to the water's edge on either side, so that from the summit the river appears like a thread of silver foaming over its rocky bottom; the variegated colors of the sides — yellow, red, brown, white — all intermixed and shading into each other; the Gothic columns of every form standing out from the sides of the walls with greater variety and more striking colors than ever adorned a work of human art. The margins of the cañon on either side are beautifully fringed with pines. . . . The decomposition and the colors of the rocks must have been due largely to hot water from the springs, which has percolated all through, giving to them their present variegated and unique appearance. Standing near the margin of the Lower Falls, and looking down the cañon,— which appears like an immense chasm or cleft in the basalt, with its sides 1,500 to 1,800 feet high, and decorated with the most brilliant colors that the human eye ever saw, with the rocks weathered into an almost unlimited variety of forms, with here and there a pine sending its roots into the clefts on the sides, as if struggling with a sort of uncertain success to maintain an existence,— the whole presents a picture that it would be difficult to surpass in nature. Mr. Thomas Moran, the celebrated artist, and noted for his skill as a colorist,

exclaimed, with a kind of regretful enthusiasm, that these beautiful tints were beyond the reach of human art. It is not the depth alone that gives such an impression of grandeur to the mind, but it is also the picturesque forms and coloring. . . . It is a sight far more beautiful than, though not so grand or impressive as, that of Niagara Falls."

At the Mammoth Hot Springs Again.

Tuesday will be devoted in part to the journey from the Grand Cañon Hotel to Mammoth Hot Springs. The route is *via* the Norris Geyser Basin Hotel, twelve miles distant from the cañon. An excellent road extends across from the Yellowstone to the Norris Basin, where we reach the thoroughfare by which we journeyed southward, so that the farther ride of nineteen miles is over familiar ground. About midway on the route from the cañon to Norris Geyser Basin are the Virginia Cascades, which are situated on the upper waters of the Gibbon. The stream courses down a rocky incline for 200 feet or more; and the road, after approaching the cascade at the top, descends the hill in front of the fall. Just beyond, the road makes a sharp bend beyond a rock barrier called Cape Horn.

The parties will reach the hotel at Mammoth Hot Springs Tuesday afternoon, and remain until noon of the following day.

From the National Park Westward.

After the tour through the Yellowstone National Park, the parties will leave Mammoth Hot Springs on the afternoons of Wednesday, August 12, and Wednesday, September 23, returning to Cinnabar by stage, and from that place to Livingston by rail. At the latter point we resume our western journey on the main line of the

Northern Pacific Railroad. Climbing the picturesque Belt Mountains, we go through a tunnel 3,500 feet in length, at an elevation of 5,572 feet, and upon the west side of the range come first to Fort Ellis and then to Bozeman, one of Montana's most flourishing cities. Ninety-eight miles west of Bozeman is Helena, the capital of the State and a city of nearly 15,000 inhabitants. Not far west of Helena we begin the ascent of the main range of the Rocky Mountains, and twenty-one miles distant from that city pass through the Mullan Tunnel, at an elevation of 5,548 feet above the sea, emerging upon the Pacific slope. The region lying west of the mountains and south of the railroad is very rich in minerals, and there are many productive gold mines in the tributary country. We descend Hell Gate River to Missoula, and at no great distance west of that place the road passes over several deep defiles. One of these, Marent Gulch, is crossed by a trestle bridge 866 feet long and 226 feet high. Surmounting the Bitter Root Mountains, we leave the State of Montana, and enter Idaho. This State comprises 86,294 square miles, and the recent census gave it a population of 84,229. The road follows down Clark's Fork, a swift and turbulent stream, for a considerable distance, passing through a number of bold rock gorges, where road building was both difficult and costly. Turning northwest, the road rounds the lovely Lake Pend d'Oreille. This is a beautiful sheet of water amid the mountains. The railroad traverses a narrow strip of the new State of Idaho, the distance from the eastern to the western border being about seventy-eight miles only.

Washington.

We enter the State of Washington nineteen miles west of the city of Spokane Falls, and traverse its broad domain for several hundred miles. No section of the country has made greater progress in the last decade. Large and important cities have sprung up upon the shores of Puget Sound, and also in its eastern part, and there has been a

steady flow of immigration from the East and Europe. Lumber, coal, agriculture and commerce form the basis of its wealth. With an area of 69,994 square miles, it has a population of 349,390, an increase of 274,274 since 1880. Its largest cities are Seattle (with a population of 43,847), Tacoma (35,858), and Spokane Falls (23,181). The suburbs of these cities are not included in these figures. The total amount of the lumber cut within the State in 1890 was 1,222,830,042 feet. The coal output reached 1,349,773 tons, the grain product 29,000,000 bushels, and the hop yield 38,000 bales, while the deep sea tonnage registered at Port Townsend (the Puget Sound port of entry and clearance) reached 3,800,088, representing 2,121 entrances and 2,135 clearances. The value of foreign exports sent across the ocean amounted to $4,092,147, an increase of over $1,000,000 over 1889. The State has 2,080 miles of railway, 372 miles having been built last year, and 951 miles are under construction. These figures convey some idea of the recent growth and development of this empire of the Pacific Northwest. Coal is found in fourteen counties and 4,000 men are employed in the mines. Iron ore of a fine quality is another important resource. Gold and silver mining is likewise carried on to some extent.

Our route takes us directly through the handsome city of Spokane Falls, later through Cheney and Sprague, and from Pasco Junction, over the Cascade Division of the Northern Pacific, into Western Washington, or the Puget Sound country. We descend the western slopes of the Cascade range Friday morning, and reach Tacoma in the forenoon, but, deferring our inspection of this prosperous young city until another time, continue on to Portland.

Oregon.

At Kalama, 104 miles south of Tacoma, our train is ferried across the broad Columbia River, and we thus enter the State of Oregon. Oregon is a third larger than

Washington, covering an area of 94,274 square miles. The history of its recent growth and progress is essentially that of its northern neighbor. Its resources are to a large extent the same, with the addition of fruits and the salmon fishery; but the coal interest is lacking, and the lumber product is not as large. The recent census credited Oregon with a population of 312,490, an increase of 137,722 since the census of 1880. Portland was credited with 46,658, but these figures did not include East Portland, Albina, and other immediate suburbs, essentially a part of the city, which would add 22,599 to the number. These places have recently been annexed to Portland.

The Columbia River.

We shall reach Portland Friday evening, but before our sojourn here we shall make a railway trip over the Union Pacific line to Dalles City, and descend therefrom by steamer, in order to inspect some of the grandly picturesque scenery of the noble Columbia River. We shall arrive at Dalles City in the night, and in the morning go on board a steamer for the delightful river trip.

The first stage of our voyage is as far as the Upper Cascades. The scenery in this part of the river — the Middle Columbia, as it is generally termed — differs somewhat from that below the cascades, but is at all times very picturesque. The banks are chiefly mountainous or precipitous cliffs, save at the entrance of Hood River, on the south, and White Salmon River, on the north, which open up something like valleys. With the exception of these two limited districts, there is little farming land for seventy-five miles along the river. Hood River is fed by the snows on the mountain of the same name. Some magnificent views of this grand mountain form are had on the way down the river. An occasional glimpse is caught of Mount Adams, but this mountain is generally hidden by nearer hills. The shores are for the most part densely wooded with maple, alder, ash, and willow; while the mountains are clothed

with pines and firs. Here and there are huge cones and walls of bare rock. In one place a great mountain of solid rock rears itself 1,000 feet or more above the river, like the gable end of some giant's habitation.

A Portage Around the Cascades.

Forty-five miles below Dalles City and a short distance from Bonneville, the passengers are forced to land, and make a transfer around the cascades of the Columbia. This is done by means of a narrow-gauge railway, six miles in length, which runs along the northern shore to the Lower Cascades. The river here is unnavigable, the water pouring over its rocky bed in a tumultuous torrent. The government is building a canal, with locks, around the obstruction, but the work is beset by many difficulties and enormous expense. We are here in the very heart of the mountain range which has derived its name from these cascades, and which is continued hundreds of miles southward through California as the Sierra Nevada. Near the Upper Cascades, on the Washington side of the river, on a point of land that juts out so as to make a good defensive position, is the old block-house, built nearly forty years ago as a means of protection against the Indians. In the outbreak of 1855 the block-house became the refuge of the settlers, and it was successfully defended under direction of young Lieutenant — afterwards the famous Lieutenant-General — Philip Henry Sheridan.

Near this same point the Indian village of Wish-ram, referred to in Washington Irving's *Astoria*, and also by Lewis and Clark, existed early in the present century.

Again upon the Columbia.

Embarking upon another steamer below the cascades, we continue our down-river trip on this noble stream. We are still in the heart of the Cascade range, and the scenery is wonderfully picturesque. We are near Castle Rock, a massive mountain

which stands boldly forth on the north shore 1,000 feet high. A little way below, on the same side of the river, is Cape Horn, a bold headland of basaltic rock which forms just above it a picturesque little bay. On the opposite cliffs, marking the Oregon shore, are several falls, which almost rival in loftiness those in the Yosemite valley. Multnomah is one of the most conspicuous. The view from the steamer's deck is even more enchanting than the nearer one on shore, since it includes much more of the surroundings. The Bridal Veil, the Latourelle, and the Oneonta are three beautiful falls, the latter being nearly as high as Multnomah. At other points flashes of foam, high amid the trees of the mountain-side, mark the presence of unnamed and unvisited cascades. Other strange objects of interest are the tall pillars of rock which rise from the water or from the narrow shelf of shore along which the railway trains are seen creeping. Rooster Rock and the Pillars of Hercules are the most prominent of these. In places the cliffs crowded the river so closely that the men who did the blasting for the railway were let down from above by slings. We gradually get beyond the mountains, and then new pictures of beauty are formed by the tall, symmetrical snow pinnacle of Mount Hood, which rises now behind us. Washougal, La Camas, and Vancouver are towns upon the Washington shore, the latter being only six miles above the mouth of the Willamette, and an important military post. It occupies the site of old Fort Vancouver. The Union Pacific Railway Company is building a bridge across the Columbia at this point. Three miles up the Willamette there is a magnificent mountain view, five of the snow-capped peaks being visible at once. With the exception of Mount Tacoma, these mountains are exceeded in loftiness by many hundred elevations in the Rocky Mountain chain; but here the beholder is nearly at the sea level, while no other high mountains are near, so that the glittering silver crowns seem supreme, towering far above every other object.

Portland.

We shall reach Portland about 5.00 P. M., and there will be an omnibus transfer from the wharf to the new and magnificent hotel, The Portland. This establishment has been erected by a company of citizens at a cost of about $750,000, and is one of the finest hotels on the Pacific Coast. It occupies a whole square in one of the pleasantest and healthiest sections of the city, and has been furnished in a lavish manner. Its manager is Mr. Charles E. Leland, a member of a famous hotel-keeping family, and personally popular through his connection with well-known Eastern hotels. Portland has progressed rapidly within the past few years. Populous suburbs are growing up on the east or opposite side of the Willamette, in connection with the railroad shops, flouring mills, and other manufacturing establishments. Portland has sixty miles of paved streets and twenty miles of street railway. Although Astoria was settled as early as 1811, the first white man is supposed to have landed upon the present site of Portland in 1843. Missionaries had established themselves in Eastern Oregon nine years before, and only five years later the much respected Dr. Marcus Whitman and his companions were massacred. The founders of Portland were two New England men; and, in bestowing a name upon the place, it is said to have been actually a toss up whether the chief city of Maine or the city at the head of Massachusetts Bay should bear the honor of the designation. The business thoroughfares are lined with fine edifices, and some of the residences on the upper streets are very tasteful, as well as elegant and costly. The city contains sixty-three churches, including six of the Roman Catholic denomination. The Chinese, who form a large element in the population, are seen everywhere. "Chinatown" is not a contracted quarter, as in San Francisco and Los Angeles, but is scattered along the best portion of Second street for a dozen squares or more. Many of the churches and school build-

ings are imposing, and the same may be said of the Post Office and some of the other public edifices. Among the buildings under construction are a commodious union railway station, a fine edifice on Stark street, between Third and Fourth streets, for the occupancy of the Chamber of Commerce, a City Hall of handsome proportions, a Public Library, and the Marquam block, near The Portland.

From the slopes back of the city the views are magnificent. Mount Hood is here the dominant feature in the landscape, lifting its proud head above the far-stretching forests; while the beautifully rounded snow-clad top of Mount St. Helen's, and some of the other mountains already mentioned, are also in sight. There will be a carriage ride through the finest business and residence portions of the city and to the heights above on Monday.

Tacoma.

Sunday and Monday will be passed in Portland, and leaving there at 10.00 A. M. on Tuesday, the parties will return over the Northern Pacific Railroad to Tacoma. The passengers will reach Tacoma at 5.30 P. M. and Seattle at 7.25 P. M. (in case it is found desirable to divide the parties for the visit to these two cities). We shall make our headquarters at The Tacoma during our stay in this handsome and progressive city. Tacoma occupies a high bluff, overlooking the sound and the Puyallup valley, at the head of which stands the giant snow peak of Mount Tacoma (14,444 feet elevation). Many of the new buildings, including the Opera House block, are really magnificent, and there are also a great number of handsome residences. The Northern Pacific Railroad Company has a handsome building on Pacific avenue, in which its western offices are situated. In the year 1890 there were erected 1,719 buildings, at a cost of $6,273,430. Among the edifices recently built are the magnificent Opera House, the Chamber of Commerce, and a spacious Court House. A large hotel is under

process of construction. Mr. C. B. Wright, of Philadelphia, through whose judgment chiefly the site of Tacoma was selected as the terminal point of the Northern Pacific Railroad, has done much in beautifying the place.

Seattle.

Both Seattle and Tacoma will be visited. The former is situated on the east coast of Eliot Bay, twenty-five miles from Tacoma, and presents a very attractive appearance when viewed from the water, or from any of its several elevations. A terrible conflagration destroyed nearly the entire business section of the place June 6, 1889; but the new Seattle is more substantial and handsomer than the old, and in many ways a gratifying indication of the pluck, energy, and business enterprise of her citizens. Nearly $7,000,000 were expended in 1889 in the erection of new buildings; while in street railways, street grading, and other public improvements a further sum was added, making an aggregate expenditure of $13,547,979 in a single year. In the city and suburbs, no less than 3,465 buildings were constructed. Some of the schools, churches, and several of the public buildings — notably the County Court House — are imposing edifices. Numerous railway lines enter here, and there are also steamer connections with near and distant points. Fresh-water lakes border Seattle on two sides, while the deep waters of the sound are upon a third. Lake Washington is thirty miles in length. The city has forty-three churches, fifteen banks, eleven public schools, the State University, and nearly 100 miles of street railways (wholly electric or cable roads) operating and under construction. The mayor of Seattle recently described the place as "the Pittsburg of iron, the Birmingham of steel, the Saginaw of lumber, the Gloucester of fish, the Lancashire of coal, the Liverpool of wheat, and the incomparable hop market of the world."

Puget Sound.

We shall leave Seattle Thursday forenoon and proceed across the waters of Puget Sound to Port Townsend and Victoria. The "Mediterranean of the North" has an area of 2,000 square miles, with an irregular shore line of 1,594 miles. There are numerous islands and for the most part they are covered with timber like the mainland. At many points are gigantic saw mills. Beside Tacoma, Seattle, and Port Townsend, several cities have come into existence on its shores, including Fairhaven and Whatcom, which are delightfully situated on the borders of Bellingham Bay. There is deep water everywhere, and at hundreds of places large ships could be loaded directly from the shore if necessary. The lumber and coal trade of the sound is very great and constantly increasing. The shores of the sound are in many places abrupt, and high mountains seem to environ this beautiful body of water. From Commencement Bay, at its southern extremity, and also on the broader part of the sound, Mount Tacoma assumes a majestic appearance; while farther north Mount Baker replaces it with its handsome cone of snow. The latter is situated in the northern part of Whatcom county, near the line of British Columbia, about thirty miles from the sound, and has an elevation of 10,719 feet. At the head of the broad peninsula west of the sound, extending towards the Strait of Juan de Fuca, and forming the northwestern extremity of Washington, is the noble Olympic range of mountains, from 6,000 to upwards of 8,000 feet in height. Nothing can be finer than a view of Mount Tacoma or Mount Baker at sunrise or sunset, when the great snow fields are illumined by a roseate flush.

Port Townsend.

This place is fast becoming one of the most important cities in the new State. It occupies a little peninsula which is washed by the waters of Port Townsend Bay,

Port Discovery Bay, and the Straits of Juan de Fuca. It commands the entrance to the sound, and the government has already expended large sums of money there in various public works. It is only ninety miles from the Pacific Ocean by the strait, or forty miles nearer than Seattle and sixty-six miles nearer than Tacoma. Like Tacoma and Seattle, Port Townsend has become the centre of great business activity, and its population has increased very rapidly within the past few years. A railway line is being built southward, and other extensive improvements are in progress. A part of the city is upon the high bluffs overlooking the sound.

Victoria, the Island Capital of British Columbia.

The capital of British Columbia is charmingly situated at the southeastern extremity of Vancouver Island. The city contains about 15,000 inhabitants. Fort Victoria, a subsidiary depot of the Hudson Bay Company,— the chief depot then being at Fort Vancouver, on the Columbia River,— was established in 1843; and in 1848, at the time of the "Cayuse war," it became an important position for sending supplies to the interior. In 1858, about the time of the gold-mining excitement on the Fraser and the Skagit, New Georgia and New Caledonia, as the main coast and interior had previously been designated, became by royal edict British Columbia, and in 1866 the colony of Vancouver Island was united therewith. Fort Victoria, meanwhile, became the city of Victoria. The place presents many interesting features to the stranger. There is a populous "Chinatown," and, mingled with the Mongolians on the streets, are many Songhish Indians. There is a reservation of this tribe near the city. Esquimalt, the chief naval station for Her Majesty's ships on the Pacific, is three and a half miles from the city, and is reached by a splendid road. Here are found a magnificent harbor, a government arsenal, and an extensive dry-dock. The dry-dock,

which is 400 feet long, sixty-five feet wide, and twenty-six feet deep, cost $250,000. The Gorge is a rock-bound channel, several miles up an inlet of the sea, where at every change of tide the water rushes through impetuously.

We shall reach Victoria in time for an extended ride through the city and to Esquimalt, before going on board the Canadian Pacific Navigation Company's steamer "Islander," for the night voyage across the Gulf of Georgia to Vancouver. In this northern region the summer days are long.

Vancouver, B. C.

We shall reach Vancouver Friday forenoon, in ample time to see something of the city before our departure by train. This city, which has risen like magic at the terminus of the Canadian Pacific Railway, has a population of about 16,000. Until May, 1886, its site was covered with a dense forest. From May to July its growth was very rapid; but in July a fire, spreading from the surrounding forest, swept away every house but one in the place. The city has been rebuilt in a substantial manner, and now contains many fine buildings, one of the chief edifices being a hotel owned by the railway company. The city fronts on Coal Harbor, a widening of Burrard Inlet, and extends across the peninsula to English Bay. A steamship line plies regularly from Vancouver to China and Japan, and there is frequent service by steamer with Victoria, Port Townsend, Seattle, Tacoma, Nanaimo, etc. The outlook from Vancouver is magnificent, comprising many mountain peaks on the mainland and on Vancouver Island, with fine prospects across the Strait of Georgia. Stanley Park is a magnificent forest tract containing many mammoth trees. The party will dine at the admirably conducted Hotel Vancouver, one of the splendid chain of hotels the Canadian Pacific Company has built along its line.

On the Canadian Pacific Railway.

At 1.00 P. M. (Friday, August 21, and Friday, October 2) we shall enter upon our eastward journey over the picturesque Canadian Pacific Railway, which stretches across the North American continent from ocean to ocean. The great national highway of Canada is a marvel in its way. It was built for a large part through a sparsely populated region, and under great difficulties; but, in spite of all, the road was completed five years in advance of the time limit fixed upon. The distance from Vancouver to Montreal is 2,906 miles. The first through train from Montreal arrived at Port Moody, thirteen miles east of Vancouver, and then the Pacific Coast terminus of the line, July 4, 1886. The scheme of establishing some sort of means of communication through Canadian territory, from the Atlantic to the Pacific, was early considered, and a combined rail and water route was proposed in 1848. Large sums of money were put forth both by the Imperial government and Canada in preliminary surveys, and as early as 1858 a corporation was chartered. These early efforts resulted in little, and the present enterprise has been wholly the growth of more recent years. Sir John Macdonald, the able prime minister of Canada, has been a strong friend of the railway project from the first, and it was largely through his influence and aid that the great work was completed. It was mainly through his counsel that the line was made purely a national institution, its ownership being almost wholly in Canadian or British hands. Upward of $100,000,000 were expended upon the main line previous to the 1st of January, 1885, independent of $35,000,000 spent by the government. The road was really constructed in four sections — two by the company and two by the government. Section 1, from Callander to Port Arthur, was built by the company, and completed in May, 1885; section 2, from Port Arthur to Winnipeg, by the government, and completed in June, 1882; section 3, from Winnipeg to Savona's Ferry,

by the company, and completed in September, 1885; and section 4, from Savona's Ferry to Port Moody, by the government, and completed in July, 1885.

Some of the eastern parts of the route were early in operation; but the section lying north of Lake Superior was one of the latest and, indeed, one of the hardest of all to build, rivaling in obstructions and requirement of skilful engineering the part of the road lying through the mountains of British Columbia. For some years the line into Winnipeg was operated in connection with steamers which plied between Port Arthur and Owen Sound. On the 11th of May, 1884, the road was opened to the summit of the Rockies, at Stephen, 122 miles west of Calgary. Although it was in reality wholly completed in the autumn of 1885, so that Her Majesty Queen Victoria sent a congratulatory message to the company on the 6th of November of that year, the nearness of the winter season led its managers to desist from working it through the mountain region until the following summer. The track-laying was carried out with great rapidity and in all weathers, some of the records being almost marvelous. On the 28th of January, 1885, nearly three miles of track were laid while the thermometer indicated a temperature of forty degrees below zero. On another day nearly 12,000 feet of track were laid when the mercurial themometer was below the registering point. In 1882 the average of the track laid on each working day was two and six-tenths miles, and on each of two days there were put down four and one-tenth miles. During the eight weeks ending Aug. 5, 1883, or in forty-eight working days, 166 miles of track were laid, exclusive of sidings. On each of two days in 1883, no less than six miles of track were laid. More than 300 miles of the line were cut through solid rock. The track upon the prairie sections was raised above the level of the ground, with a result that the trains have met with little or no obstruction from snow at any season of the year. This plan suggested itself to the practical mind of

President (then vice-president) W. C. Van Horne. The mountains are pierced by scores of tunnels, and innumerable rivers are crossed by iron or wooden bridges. There are iron bridges over 1,000 feet in length, and one bridge is 295 feet above the mountain stream it spans. No less than fourteen streams were diverted from their natural beds — in some cases by tunneling through the solid rock.

While the Lake Superior section was under construction, an army of from 10,000 to 12,000 men was employed on the work, with from 1,500 to 2,000 teams of horses. In winter this force of animals was augmented by about 300 trains of dogs. The Canadian Pacific system embraces much more than its main line, its eastern extensions reaching Quebec, Halifax, and Cape Breton, while numerous branches connect the trunk road with the chief American cities. On the main or transcontinental line, stations are located at nearly uniform distances of eight miles, and at alternate stopping-points station-houses and water tanks have been erected. Where towns or settlements were encountered, stations were established regardless of this system; but the number originally was so few that the same general plan was pursued throughout the line. At each of the alternate stations a passing track of 2,000 feet in length and a business track 1,000 feet long were built, and the intermediate stations were provided with side tracks 2,000 feet long. Divisional points, with train yards, engine-houses, coal sheds, etc., are located at intervals of 130 miles, and at alternate divisional points repair shops were established. The company owns the telegraph line as well as all other appurtenances of the road.

Canada Considered Geographically.

The prevalent idea regarding the extent of the Dominion of Canada, on the part of

those persons who do not study geography,—and there are many Americans and some Canadians who do not,—is that it comprises only a narrow strip of territory lying along the St. Lawrence and the Great Lakes. Let us glance at the map, and see how near the truth this may be. The southern boundary of Canada strikes the 49th parallel west of the Lake of the Woods, being considerably deflected through its easterly extent and slightly at its western extremity. Everything on the American continent north of the 49th parallel, except Alaska, belongs to the Dominion. The area of the United States, inclusive of Alaska, is 3,510,978 square miles, and that of Europe 3,900,000 square miles. Canada contains 3,610,257 square miles, inclusive of 140,000 square miles of water area, and is therefore larger by 99,279 square miles than the United States, and within about 300,000 square miles of the area of all Europe. We are comparing simply the area of these great subdivisions of the world, not their relative standing in population or in resources. Of the seven Provinces (Prince Edward Island, Nova Scotia, New Brunswick, Quebec, Ontario, Manitoba, and British Columbia), British Columbia is the largest, with an area of 341,305 square miles, while the districts and territories comprise no less than 2,585,000 square miles. The Province of Ontario is the most populous and the wealthiest, notwithstanding the fact that both Montreal and Quebec lie within the neighboring Province of Quebec.

The entire population of Canada in 1881 was 4,324,810. The territories were at that time so sparsely populated that, if the land could have been distributed equally, every settler would have had over 30,000 acres, while in the most thickly settled Province each person would have had nearly thirty-four acres. It is a fact worthy of note that, in our long transcontinental journey over the Canadian Pacific Railway, we are to traverse the four largest Provinces of the Dominion, and in addition the districts of Alberta and Assiniboia, which are divisional parts of the great Northwest Territory.

Through the Coast Range and the Fraser River Cañons.

Leaving Vancouver we skirt the shores of Burrard Inlet for thirteen miles, or as far as Port Moody. Snow-tipped mountains, beautiful in form and color, rise opposite, and are vividly reflected in the mirror-like waters. At intervals along the heavily wooded shores are mills and villages, with ocean steamships and sailing craft loading with sawn timber for all parts of the world. On the other hand, and towering high above, are gigantic trees, twenty, thirty, and even forty feet around. At Mission is an important Roman Catholic Indian school. A fine view of Mount Baker is had upon the right before reaching this place. The mountain is also seen at several points beyond. Agassiz, overlooked by Mount Che-am, is the station for Harrison Springs, which are situated near Harrison Lake, five miles north. At Yale we are fairly amid the mountains, and for a farther distance of twenty-three miles, or as far as Boston Bar, we are in the principal cañon of the Fraser. The scenery is both interesting and startling. The great river is forced between vertical walls of black rocks, and foams and roars against impending masses. The railway is cut into the cliffs 200 feet or more above, and the jutting spurs of rock are pierced by tunnels in quick succession. At Spuzzum the government road is brought across the chasm on a graceful suspension bridge to the more tenable ground of the west wall. This thoroughfare was in use before the railway was built, and was constructed by the government at great expense. For many years it formed the only means of approach to the northern mines. Three miles beyond Keefer's, where it follows the cliffs opposite the railway, it is forced to a height of 1,000 feet above the river, and is pinned by seemingly slender sticks to the face of a gigantic precipice. Chinamen and Indians are seen along the river, the former looking for gold on the sand or gravel bars. Indian villages, with their barbarously decorated burial-places, alternate with the groups of Chinese huts. North Bend is a

railway divisional point, and here has been located another of the company's inviting little hotels, at which we shall halt for supper. Six miles below Lytton the railway crosses the Fraser by a steel cantilever bridge, high above the water, and at Lytton it turns eastward to follow up the banks of the Thompson River.

Thompson River Cañon and the Lake Region.

Above this point lies the series of Thompson River Cañons and the lake region. At Spence's Bridge, twenty-two miles above Lytton, the old Cariboo road crosses the Thompson. At Savona's Ferry the river broadens into Kamloops Lake, a hill-girt sheet of water, along the southern shore of which the railway runs about twenty miles. The lake continues nearly to Kamloops, a divisional point on the railway which is situated at the junction of the north fork of the Thompson and the main stream. The name is of Indian origin, and means a river confluence. Beyond here lies the Great Shuswap Lake, so named from the Indian tribe that lived on its banks, and who still have a reservation here. The railway runs beside the lake for a long distance, and then crosses one of its southern arms at Sicamous Narrows.

Through the Gold Range and Across the Columbia.

Following up the Eagle River, we pass through the Gold range by a low pass which embraces several little lakes. From Summit Lake, which is only 525 feet above the Columbia River, we descend to Revelstoke, where the river is crossed on a long bridge. At Craigellachie, twenty-eight miles west of Revelstoke, the last spike was driven in the Canadian Pacific Railway, Nov. 7, 1885. A dozen miles below Revelstoke the Columbia expands into the Arrow Lakes.

The Selkirks and the Great Glacier.

Not far beyond Revelstoke we begin the ascent of the Selkirks. The scenery becomes very striking and picturesque the farther we advance. The narrow valley becomes a gorge, and tall peaks arise like white spectres through the occasional openings on either side, or in front of us, only to vanish as suddenly as they came. We follow up the course of the rapid Illecilliwaet, which rises among the glaciers of the great peaks before us. Gigantic trees cover the neighboring hills. At Albert Cañon the train stops, and the passenger may gaze down into the foaming waters 300 feet beneath him, the walls of the great flume being not more than twenty feet apart. Solidly built balconies enable the traveler to approach close to the edge. Near Illecilliwaet station are several silver mines. Above the station of Ross Peak we round the great loop, our train making several startling turns and twists, and almost doubling back upon its tracks. The lofty peak of Sir Donald and the great glaciers on its sides and on the slopes of Ross Peak have already begun to attract attention. The mountain views are often superb, and every turn of the devious pathway brings fresh scenic marvels. The Great Glacier of the Selkirks seems to be tumbling down to us from the clouds, and at Glacier House is not over a mile away. This is another of the railway company's delightful little hotels, which, with its characteristic surroundings, seems more like a Swiss chalet than an American structure. It is a most charming place to dine, and the outlook from its porch is very fine. Sir Donald, an abrupt peak, rises to a height of more than a mile and a half above the track. This stately monolith was named for Sir Donald Smith, one of the chief promoters of the Canadian Pacific Railway. To the left are two or three sharp peaks, second only to Sir Donald. Rogers's Pass and a snowy mountain beyond (Grizzly Peak and a member of the Hermit range) are also in view. To the left is Cheops, and far down among the trees the

Illecilliwaet glistens. A shoulder of Ross Peak is visible at the left of Cheops, over the slopes of the mountain behind the hotel. A glacial stream has been caught, and made to furnish fountains about the house. Game is very abundant throughout these lofty ranges, big-horn sheep, mountain goat, and bears being foremost in the list.

On leaving Glacier House we round the great slopes of Sir Donald, and looking back see the railway far down in the abyss, where it seeks the bottom of the valley by a series of bewildering curves. We soon reach the summit of Rogers's Pass (so called in honor of Major A. B. Rogers, who discovered it in 1883), at an elevation of 4,300 feet. The pass lies between two lines of huge, snow-clad peaks. The one on the north forms a prodigious amphitheatre, under whose parapet, 7,000 or 8,000 feet above the valley, half a dozen glaciers may be seen at once, and so near that their shining green fissures are distinctly visible. On the south stretches the line of peaks connecting MacDonald with Sir Donald. The pass has been reserved by the government as a national park. We descend from the summit beside Bear Creek, which leads down to Beaver River, and for a score of miles are coursing down the slopes of giant hills whose crests are gleaming ice and snow. We look down into a vast ravine which separates the Hermit from Mount MacDonald, both of which rise in rugged splendor very near us. Looking backward we see a long line of shapely peaks, with Sir Donald at their head. Many mountain torrents rush down towards the Beaver, and high bridges have been thrown across the side ravines. One of these has an elevation of 295 feet above the noisy rill that flows below. It is called Stony Creek bridge. A foaming cascade not far beyond is entitled "The Surprise." At times we are 1,000 feet above the glistening Beaver River, but we soon reach its banks and are at the base of the Selkirks. At Donald, eleven miles beyond Beavermouth, we cross the Columbia for the second time. We have traveled across the mountainous peninsula formed by

the great bend of the Columbia a distance of seventy-eight miles, while the river flows over 200 miles and descends 1,050 feet. Donald is the junction point of the Pacific and Western Divisions, and here railway time advances one hour, so as to conform to mountain standard.

Up the Gorge of the Wapta, or the Kicking Horse River.

The main range of the Rocky Mountains lies before us; and at Golden, seventeen miles above Donald, we leave the Columbia to mount the range through the picturesque Wapta, or Kicking Horse Pass. The grade here reaches 234 feet to the mile, and the building of the railway involved some marvelous feats of engineering. Although the total length of the Wapta, or Kicking Horse River, is only forty-seven miles, its descent is 2,800 feet. Beside this rapid stream the railway twists and turns, now far above its turbulent waters, and then almost at its level, while on every side are new and startling pictures of grandeur. The lower cañon of the Kicking Horse, near Palliser, is narrow, and the mountain walls are very precipitous. It is a vast chasm, through which the railway had to dispute the right of way with the tumultuous stream. With the towering cliffs almost shutting out the sunlight, and the roar of the river and the train increased a hundred-fold by the echoing walls, the passage of this terrible gorge will not soon be forgotten. At Leanchoil the Beaverfoot River enters, and looking southward the long array of peaks belonging to the Beaverfoot Mountains is seen. Field (named in honor of Cyrus W. Field), where the railway company has placed another of its charming little hotels, is upon the western slope, ten miles from the summit. Looking backward from here, the Otter-tail Mountains are seen on the left, and the Van Horne range on the right, with Mounts Deville and King as the most prominent peaks of the latter. Two miles below Field very lofty, glacier-bearing heights look down from the north.

At Stephen, which, like the neighboring noble peak, was named in honor of Sir George Stephen, Bart., formerly president of the Canadian Pacific Railway Company, we are at an elevation of 5,296 feet, and at the summit of the Rocky Mountains. Mount Stephen towers 8,240 feet above our heads, or over 13,500 feet above the sea level, a bold, precipitous peak of very striking form. High, towards its castellated summit, are two glaciers, one being seen upon the eastern approach and the other upon passing its massive front. These great ice streams overflow, as if from the rim of some mighty beaker. On the opposite side of the pass is a mountain of lesser elevation than Mount Stephen, yet of grand outline. The summit of the pass is found to be an almost level space, about four miles in length, with three lakes, the first of which is the source of the Kicking Horse. The middle one is Link Lake, which seemingly has neither inlet nor outlet, but whose waters might be carried either to the Atlantic or the Pacific. The third is called Summit Lake, and from it flows Summit Creek downward towards the Atlantic.

Down the East Slope of the Rockies.

There is an easy grade on the east side, compared with what we have ascended from the west. We are still amid the mountains, and a straight piece of track for any considerable distance is by no means attainable. We first descend a tributary of the Bow River, and later are upon the banks of this beautiful mountain stream. There are lofty mountains on every side, and among the loftiest are Lefroy with its isolated, helmet-shaped top, Mount Temple, and Castle Mountain.

The Hot Springs of Banff and the Canadian National Park.

At the station of Banff, 502 miles east of Vancouver and 2,342 miles west of Montreal, our train halts, in order that we may pay a visit to the famous hot springs which

are near at hand. Here in the heart of the mountains, amid scenery of the grandest and most impressive character, the Dominion government has made a reservation of a tract twenty-six miles long and ten miles wide, inclusive of a remarkable group of hot sulphur springs, as a national park. Large sections of the valleys of the Bow, Spray, and Cascade Rivers, Devil's Lake, and several noble mountain ranges are also embraced in this picturesque domain. A magnificent hotel, which cost over $300,000 and contains every modern luxury, including baths supplied from the hot springs, has been erected by the railway company, and roads and bridle paths to the various points of interest in the vicinity have been constructed. The huge mass northward of Banff is Cascade Mountain (9,875 feet). Eastward is Mount Inglismaldie and the heights of the Fairholme sub-range, the chief of which, seen from here, is Peechee, with an elevation of 10,000 feet. Behind this range lies Devil's Head Lake. Up the Bow River westward tower the distant, snowy, central heights of the main range about Simpson's Pass, most prominently the square, wall-like crest of Mount Massive. The springs are at different elevations upon the eastern slope of Sulphur Mountain, the highest being 700 feet above the Bow River. In one locality is a pool inside a dome-roofed cave. The more important springs have been improved by the government, and good roads lead to them from the hotel.

From Banff Eastward.

After two days' rest at the comfortable Banff Springs Hotel, which is one of the largest and most pretentious of all the railway hotels along the Canadian Pacific line, we resume our journey eastward. We are yet encircled by lofty peaks, but we soon emerge on the plains below, and into a region given up largely to grazing. Calgary is an important town of between 3,000 and 4,000 inhabitants, and the centre of a large

cattle trade. Only a few years ago buffalo were plentiful hereabouts, but they have wholly disappeared. We entered the provisional district of Alberta when we crossed the summit of the pass through the Rocky Mountains. We leave it near Langevin, and enter the district of Assiniboia. There are wells of natural gas at Langevin and at some other points near there. At Medicine Hat we cross the South Saskatchewan by a steel bridge 1,010 feet long. Coal and iron are abundant in this neighborhood; and from Dunmore, a station nine miles east of Medicine Hat, an important branch line leads to extensive collieries. The coal is of bituminous quality. Medicine Hat is a railway divisional point with repair shops, and acquires additional importance from being the centre of cattle and coal interests. There is a pretty garden here in front of the station buildings. Maple Creek, Swift Current, and Moosejaw are among the most important stations lying east. At Regina, the capital of Assiniboia, are the Indian offices and the headquarters of the mounted police, a uniformed force of 1,000 men that exerts a wholesome influence, not only in preventing smuggling from across the United States border, but also in preserving order among both Indians and whites throughout the territory. Recognizing the fact that whiskey is one of the prime evils in a new country, its importation and sale are rigidly prohibited. Liquor selling to the Indians is an offence that brings quick punishment, and there is not an open saloon along the entire line of the railway within the Northwest Territory — a state of things that contrasts oddly enough with what is seen along the railway lines in Montana, Idaho, New Mexico, and Arizona. There is an entire absence of the rough and reckless element invariably seen around the American railway stations of the far west. It is made evident in many ways that, when the farmer comes to town, there is something else to engage his attention than the drinking-shop. At every important station one or more of the red-coated officials enter the regular trains to care-

fully inspect all incoming passengers, with a view to detecting any infringement of the regulations concerning the sale of intoxicating liquors.

Assiniboia is one of the four provisional districts constituting the great Northwest Territory, the others being Alberta, Saskatchewan, and Athabasca. Of these, Athabasca is the largest, having 122,000 square miles, Saskatchewan standing next with 114,000 square miles; Alberta third with 100,000 square miles, while Assiniboia has a domain of 95,000 square miles. This latter district and Alberta lie along the American border.

Manitoba.

Wednesday morning will find us in the western part of Manitoba, and the entire day is passed in traversing this rich and growing province. Large farms which produce wheat in immense quantities line the railway, and the villages and towns assume a business-like aspect. Elevators take the place of cattle pens, and there are many signs of thrift and plenty. Brandon is a stirring place, with a population of between 5,000 and 6,000, and a distributing point for an extensive and well-settled country. It has five elevators, a flouring-mill, and a saw-mill. Standard time here changes from mountain to central, one hour faster. We have reached the valley of the Assiniboine, and two miles east of Brandon we cross that stream. The towns succeed each other at intervals of five to eight miles all the way to Winnipeg. Portage la Prairie is a place of 3,600 inhabitants, and, like Brandon, a great wheat market. The Manitoba & Northwestern Railway, which penetrates the far northern country, here forms a junction with the Canadian Pacific line.

Winnipeg.

We shall reach the capital of Manitoba in the afternoon. Winnipeg is the largest and most important place upon the whole line between Montreal and the Pacific Coast, except Ottawa. It is situated at the confluence of the Red River and the Assiniboine, and under the name of Fort Garry was long the headquarters of the Hudson Bay Company. It is the capital of Manitoba, and with a population of about 28,000 takes rank as the seventh or eighth city in the Dominion in point of size. It has broad and regular streets, and some of its public edifices and business blocks are notably handsome. The City Hall is a fine building, and there are few larger or better appointed business establishments on the American continent than the new stores of the Hudson Bay Company. It is a pity, however, that nearly all traces of the quaint old block edifices which formerly served this great trading corporation for its offices, magazines, and fortifications have been obliterated. The headquarters of the company are maintained here. Mr. Wrigley, its chief commissioner, resides in Winnipeg; and its outlying posts, extending to the Arctic Ocean, are supplied from this point. Not far from the Hudson Bay Company's headquarters are the buildings occupied by the provincial government, including the lieutenant-governor's residence, the Parliament House, and the Department of Agriculture. There is also a large drill shed in the government park; in front of the City Hall is a handsome monument commemorative of the valor of the Canadian soldiers who fell in the Northwestern rebellion. Across the Red River lies the French town of St. Boniface, containing the Cathedral, the official residence of Archbishop Tache (the head of the Roman Catholic Church in the Northwest), and several important denominational schools. The chief workshops of the Canadian Pacific Railway between Montreal and the Pacific are at Winnipeg, and the train yards contain more than twenty miles of sidings.

From Winnipeg to Montreal.

Leaving Winnipeg, we pass through the eastern section of the Province, skirting the north shore of the Lake of the Woods at Kewatin and Rat Portage. Before the days of the railway, Rat Portage held an important position, for here only 300 yards divide the Lake of the Woods and Winnipeg River. This brought the place into the track of the early trappers and *voyageurs*. There exists through the great northern wilderness a chain of lakes and rivers which make possible, with small portages here and there, continuous navigation for hundreds and even thousands of miles. These great water highways were in the early days traversed by the aborigines, and later by the intrepid searcher after furs. During the building of the railway, also, these inland waters served a good purpose in aiding in the transportation of supplies. West of Rat Portage, the track is carried across several arms and bays of little lakes, and in places there were extensive "fills." Viaduct Lake is crossed by a causeway which took 500,000 cubic yards of earthwork.

Thursday morning finds us in the wild and broken country lying between the Lake of the Woods and Lake Superior. Following down the Mattewan and Kaministaquia Rivers, we shall reach Fort William and Port Arthur in the afternoon. These two places are seven miles apart, the former lying on the banks of the Kaministaquia River, two and a half miles from Lake Superior. It is an old Hudson Bay Company's post, and was originally intended to be the Lake Superior terminus of the Canadian Pacific Railway instead of Port Arthur. The railway company makes the town one of its distributing points in connection with its lake traffic. Near the town rises McKay's Mountain, an abrupt and picturesque elevation. Port Arthur, formerly known as Prince Arthur's Landing, is on the shore of the picturesque Thunder Bay. It was settled about 1867, and is an important railway and steamship point in connection with

the Canadian Pacific Company's traffic. There are here extensive docks, some of which belong to the railway company and some to private parties. The town is pleasantly situated upon the sloping shores, with an outlook upon the dark cliffs of Thunder Cape and Pie Island. It has a population of about 5,500, and is the largest place between Ottawa and Winnipeg. Railway time changes at this point from Central to Eastern standard, one hour faster.

We traverse the shores of Lake Superior during a part of the afternoon, amid much diversified and pretty scenery. At Nepigon we cross the Nepigon River on an iron bridge 800 feet long and 80 feet high. Lake Nepigon, which lies north of the railway, is forty or fifty miles across, and a noted fishing and trapping region. Nepigon, Gravel River, Rossport, Schreiber — the railway divisional headquarters, and so named in honor of Collingwood Schreiber, government engineer of railways, to whose skill the successful building of this great line is largely due — and Jackfish are among the important stations on the lake shore east of Port Arthur. For a distance of nearly 200 miles we skirt the rough and rocky shores of this great inland sea; and it is difficult to realize, as we gaze upon the seemingly boundless waste of waters, that we are not looking out upon the ocean itself. The scenery is at all times interesting and often truly grand. The railway is carried along for much of the way well up on the rocky shelf above the lake, following, to a large extent, the irregular contour of the shore, which is indented by numerous bays. Abrupt headlands project into the lake, and in many places these required tunneling, while high bridges stretch across intervening ravines. The building of this part of the road involved immense expenditures of money, as the road-bed had mostly to be carved from the solid rock.

Friday will be occupied chiefly in traversing a wild and wooded region, through which extends a line of lakes, large and small. Chapleau, on the shores of Lake Kino-

gama, is a railway divisional headquarters, with railway workshops, and Cartier is another. At Sudbury, the Sault Ste. Marie, or "Soo" line, comes in from the west, and near at hand are some of the most extensive deposits of copper and nickel known in the world. At Sturgeon Falls the railway crosses directly over the falls of the Sturgeon River. The large, clear, rock-bound lakes are in places so numerous that, with their connecting arms, they form a labyrinth of waters covering great areas, and offering matchless opportunities to sportsmen and canoeists. Bear, moose, and deer abound throughout this region, and the fishing is unsurpassed. There are wide intervals of good agricultural land, but it has not been largely availed of except in and near some of the towns. At North Bay, a Canadian Pacific branch comes in from Toronto, and at Thorncliffe is another railway connection for southern points. The former is a prosperous young town on the shores of Lake Nipissing, a beautiful sheet of water, ten miles wide and forty miles long, with forest-clad shores and islands. At Callander the old government railway lines which were taken by the company terminated, and here the construction of the Canadian Pacific Railway was begun. Mattewa is an old trading-post of the Hudson Bay Company, but at present of chief importance as a distributing point for the lumber districts. From this place we descend the valley of the Ottawa River, passing through both Pembroke and Ottawa in the night.

Montreal.

We shall arrive in Montreal at 8.00 A. M. Saturday (August 29 and October 10), at the Windsor street station, which is near the palatial Windsor Hotel, where we shall pass Saturday and Sunday. There will be a carriage ride, with visits to the chief points of interest in the city, including Mount Royal Park and the Grey Nunnery (or L'Hôpital de les Sœures Grises). Among the churches worthy of attention are the

French Cathedral of Notre Dame, which was built in imitation of its Paris namesake, and holds over 10,000 people, on Notre Dame street; the handsomely decorated Church of the Jesuits, on Bleury street; Christ Church Cathedral, on St. Catherine street; the new and beautiful Church of Notre Dame de Lourdes, on St. Catherine street; the ancient church of Notre Dame de Bonsecours, on St. Paul street; and St. Peter's Cathedral, near Dominion square. The towers of Notre Dame, one of which may be ascended, are 220 feet in height. Among the prominent public buildings are several bank edifices and the Post Office, on St. James street; the Court House and new City Hall, on Notre Dame street; the Bonsecours Market, on St. Paul street; Ste. Anne's Market, on Foundling street; the Custom House, at Foundling and Common streets; the Young Men's Christian Association Building, on Victoria square; and the Hotel Dieu, McGill College, College of Montreal, and the Exhibition structures, near the mountain. The statue of Her Majesty, the Queen, which ornaments Victoria square; the Nelson Monument, at the head of Jacques Cartier square; and the substantial docks, crowded with ocean steamers and sailing craft, are also objects of interest. The Grey Nunnery comprises an extensive group of buildings on Dorchester and Guy streets. The view from Mount Royal includes the entire city, the river and its islands, the Victoria Bridge, and a large extent of country, with Belœil, Boucherville, and other distant mountains. To the list of prominent edifices should be added the Windsor Hotel, which is one of the finest establishments of its kind in America.

From Montreal to Boston.

Leaving the Canadian metropolis Monday morning, from the Windsor street station of the Canadian Pacific Railway, we journey southward in drawing-room cars. We cross the United States boundary line near Richford, Vt., after having journeyed over

3,000 miles wholly within the Dominion of Canada. We cross the St. Lawrence on a magnificent steel bridge which stretches across the river from Lachine to the Indian village of Caughnawaga. Lake Memphremagog, the valleys of the Passumpsic and the Connecticut, the western section of the Franconia group of the White Mountains, the shores of Lake Winnipesaukee and the valley of the Merrimac are among the scenic features of interest in the New England section of the ride. From Newport, Vt., to Wells River, and again from Nashua, N. H., to Boston, we travel over the Boston & Maine system. Between those points we pass over a part of the Concord & Montreal Railroad line. Dinner will be provided at the Memphremagog House, Newport, Vt. The train will reach Boston (Southern Division station of the Boston & Maine system, Causeway street) at 8.50 P. M.

Price of Tickets.

The price of tickets for the excursion, as described in the foregoing pages, will be THREE HUNDRED AND SEVENTY-FIVE DOLLARS. This sum will cover first-class travel over all railway and steamer routes going and returning, with double berths in Wagner, Pullman, and Canadian Pacific sleeping-cars; seats in drawing-room cars; all stage rides to and throughout the Yellowstone National Park; hotel accommodations according to the itinerary, for the period of the regular tour (thirty-six days), with sojourns at Chicago, St. Paul, Minneapolis, Mammoth Hot Springs, Lower Geyser Basin, Upper Geyser Basin, Yellowstone Lake, Yellowstone Cañon, Portland, Or., Tacoma, Seattle, Banff Hot Springs, and Montreal; stateroom berths between Victoria and Vancouver on the Canadian Pacific Navigation Company's steamer; meals in dining-cars, at hotels, dining-stations, or on steamers *en route;* omnibus or carriage transfers from railway stations to hotels, and *vice versa*, wherever the same may be needed (Chicago, St. Paul, Minneapolis, Portland, Tacoma, Seattle, Banff, and

Montreal); carriage rides in St. Paul, Minneapolis, Portland, Victoria, and Montreal; all expenses for transportation, transfer and care of checked baggage to the extent of 150 pounds for each person (except in the Yellowstone National Park, where only hand luggage will be taken), all excess of 150 pounds being liable to excess charges at regular transportation rates; and the services of conductors. Hand luggage must be under the care of its owners.

EXTRA SLEEPING-CAR ACCOMMODATIONS.— Members of the party who desire extra sleeping-car accommodations can secure the same at regular through rates, notwithstanding the frequent halts made during the journey. The cost of an extra double berth (giving an entire section to one person), for the journey between Boston and Portland, together with the side trip from Portland to Dalles City, and the return from Portland to Tacoma, is $25.00. The cost of an extra double berth (giving an entire section to one person) from Vancouver to Montreal is $20.00. Drawing-room cars will be used between Montreal and Boston.

ITINERARY.

MONDAY, July 27. First Party.
MONDAY, Sept. 7. Second Party.

First Day.— Leave Boston, from the station of the Fitchburg Railroad, Causeway street, at 3.00 P. M., and proceed westward, *via* the Hoosac Tunnel line, in a train of magnificent vestibuled palace cars. On arrival at the station members of the party should check their baggage to Chicago. The checks will be taken up by the baggage master of the party, who will attend to the delivery, collection, and transportation of the baggage during the trip. Tags are supplied with the excursion tickets, and these, with the owner's name and home address plainly inscribed thereon, should be attached to every trunk, valise, or other piece of baggage, to serve as a ready means of identification. Supper at station dining-rooms, Athol, Mass. From Rotterdam Junction, N. Y., westward on West Shore Railroad.

TUESDAY, July 28. First Party.
TUESDAY, Sept. 8. Second Party.

Second Day.— On the West Shore Railroad, arriving at Buffalo in the morning, and at Suspension Bridge about 7.00 A. M., thus crossing the Niagara River by daylight; from that point westward on Great Western

Division of Grand Trunk Railway; from Port Huron, Mich., westward on Chicago & Grand Trunk Railway. Breakfast on dining-car; dinner at station dining-rooms, London, Ont., and supper at station dining-rooms, Point Edward, Ont.

WEDNESDAY, July 29. First Party.
WEDNESDAY, Sept. 9. Second Party.
Third Day.—Breakfast on Chicago & Grand Trunk dining-car; arrive in Chicago 8.10 A. M.; transfer by Parmelee's omnibus line from the Dearborn station to the Sherman House, J. Irving Pearce, proprietor.

THURSDAY, July 30. First Party.
THURSDAY, Sept. 10. Second Party.
Fourth Day.—In Chicago. Omnibus transfer from the Sherman House to the station of the Wisconsin Central division of the Northern Pacific Railroad, corner of Harrison street and Fifth avenue, and leave Chicago by said line at 5.00 P. M., in Pullman palace sleeping-cars; supper on Wisconsin Central dining-car.

FRIDAY, July 31. First Party.
FRIDAY, Sept. 11. Second Party.
Fifth Day.—Arrive in St. Paul at 7.45 A. M.; transfer by J. B. Cook & Son's omnibus line from the Union station to the Hotel Ryan, Eugene Mehl, proprietor; carriage ride, with visits to the chief business and residence portions of the city, the Capitol, Summit avenue, the Observatory (midway between St. Paul and Minneapolis, and affording a view of both cities), Fort Snelling, etc.

SATURDAY, Aug. 1. First Party.
SATURDAY, Sept. 12. Second Party.
Sixth Day.—Omnibus transfer from the Hotel Ryan to the Union station, and leave St. Paul *via* Northern Pacific Railroad at 8.40 A. M.; arrive in Minneapolis at 9.10 A. M.; transfer by Mattison's omnibus line from the Union station to the West Hotel, John T. West, proprietor; carriage ride, with visits to Minnehaha Falls, the finest business and residence portions of the city, the great flour mills (the largest in the world), the bridge below St. Anthony's Falls (affording the best view of the falls), the new Exposition Building, the Suspension Bridge, etc.

SUNDAY, Aug. 2. First Party.
SUNDAY, Sept. 13. Second Party.
Seventh Day.—In Minneapolis.

MONDAY, Aug. 3. First Party.
MONDAY, Sept. 14. Second Party.
Eighth Day.—Omnibus transfer from the West Hotel to the Union station, and leave Minneapolis at 8.45 A. M., *via* Northern Pacific Railroad, in vestibuled Pullman palace sleeping-cars. Dinner and supper in Northern Pacific dining-cars.

TUESDAY, Aug. 4. First Party.
TUESDAY, Sept. 15. Second Party.

Ninth Day.—On Northern Pacific Railroad *en route* through the western section of North Dakota and Montana. Breakfast, dinner, and supper on Northern Pacific dining-car. Arrive at Livingston, Mon., at 8.15 P. M.; the cars will be placed upon a side track, and there remain until morning.

WEDNESDAY, Aug. 5. First Party.
WEDNESDAY, Sept. 16. Second Party.

Tenth Day.—Breakfast at the Albemarle Hotel; leave Livingston, *via* the National Park Branch of the Northern Pacific Railroad, 8.30 A. M.; arrive at Cinnabar 10.18 A. M.; leave Cinnabar by George W. Wakefield's stage line at 10.30 A. M.; arrive at Mammoth Hot Springs Hotel 12.00 M.

THURSDAY, Aug. 6. First Party.
THURSDAY, Sept. 17. Second Party.

Eleventh Day.—Leave Mammoth Hot Springs in George W. Wakefield's stages at 8.00 A. M. for the tour through the park. Arrive at Norris Geyser Basin 12.30 P. M.; dinner there; leave Norris Geyser Basin 1.30 P. M., passing near the principal geysers in this basin, including the Hurricane, the Monarch, the Minute Man, etc., and later near the Gibbon Falls; arrive at the Lower Geyser Basin Hotel 6.30 P. M.

FRIDAY, Aug. 7. First Party.
FRIDAY, Sept. 18. Second Party.

Twelfth Day.—Leave Lower Geyser Basin at 8.00 A. M., and visit the Fountain Geyser, the Paint Pots, Excelsior Geyser (or Hell's Half-Acre), Turquoise Spring, Prismatic Spring, and other objects of interest between the Lower and Upper Geyser Basins; arrive at the Upper Geyser Basin Hotel 11.00 A. M. The hotel is situated near Old Faithful, the Bee Hive, Giantess, Castle, and others of the great geysers.

SATURDAY, Aug. 8. First Party.
SATURDAY, Sept. 19. Second Party.

Thirteenth Day.—Leave Upper Geyser Basin 8.00 A. M.; arrive at Trout Creek at 1.00 P. M.; dinner there; leave Trout Creek 2.00 P. M.; arrive at Yellowstone Lake Hotel 4.00 P. M.

SUNDAY, Aug. 9. First Party.
SUNDAY, Sept. 20. Second Party.

Fourteenth Day.—At Yellowstone Lake.

MONDAY, Aug. 10. First Party.
MONDAY, Sept. 21. Second Party.

Fifteenth Day.—Leave Yellowstone Lake at 8.00 A. M.; arrive at Grand Cañon Hotel at 12.00 M.

TUESDAY, Aug. 11. First Party.
TUESDAY, Sept. 22. Second Party.

Sixteenth Day.—Leave Grand Cañon Hotel 10.30 A. M.; arrive at Norris Geyser Basin 12.30 P. M.; dinner there; leave Norris Geyser Basin 1.30 P. M.; arrive at Mammoth Hot Springs Hotel 5.30 P. M.

WEDNESDAY, Aug. 12. First Party.
WEDNESDAY, Sept. 23. Second Party.

Seventeenth Day.— Leave Mammoth Hot Springs 2.00 P. M.; arrive at Cinnabar 3.45 P. M.; leave Cinnabar, *via* National Park Branch of the Northern Pacific Railroad, 4.00 P. M.; arrive at Livingston 6.02 P. M.; supper at Albemarle Hotel; leave Livingston 8.15 P. M. on main line of Northern Pacific Railroad in vestibuled Pullman palace sleeping-cars.

THURSDAY, Aug. 13. First Party.
THURSDAY, Sept. 24. Second Party.

Eighteenth Day.— *En route* westward through Montana, Idaho, and Washington on the Northern Pacific Railroad. Meals in Northern Pacific dining-car.

FRIDAY, Aug. 14. First Party.
FRIDAY, Sept. 25. Second Party.

Nineteenth Day.— *En route* through Washington on the Northern Pacific Railroad. Meals in Northern Pacific dining-car. Arrive in Portland at 6.30 P. M.; leave Portland, *via* Union Pacific Railroad, at 9.00 P. M.

SATURDAY, Aug. 15. First Party.
SATURDAY, Sept. 26. Second Party.

Twentieth Day.— Arrive at Dalles City 1.00 A. M.; the train will be placed upon a side track to remain until morning; leave Dalles City by steamer of the Union Pacific Railway line, River Division, at 7.00 A. M. for a descent of the most picturesque part of the Columbia River; breakfast on board the boat; arrive at the Upper Cascades 11.30 A. M.; transfer by narrow-gauge railway to the Lower Cascades (six miles), and leave there at 12.15 P. M. by steamer; dinner on board the boat; arrive at Portland 4.30 P. M.; omnibus transfer from the Ash street wharf to The Portland, Charles E. Leland, manager.

SUNDAY, Aug. 16. First Party.
SUNDAY, Sept. 27. Second Party.

Twenty-first Day.— In Portland.

MONDAY, Aug. 17. First Party.
MONDAY, Sept. 28. Second Party.

Twenty-second Day.— In Portland. Carriage ride through the finest residence and business sections of the city and to the park, which affords a grand view of Portland and its surroundings, with Mount Hood, Mount St. Helen's, etc.

TUESDAY, Aug. 18. First Party.
TUESDAY, Sept. 29. Second Party.

Twenty-third Day.—In Portland. Omnibus transfer from The Portland to the Northern Pacific Railroad station, and leave Portland by said line at 10.00 A. M.; dinner on Northern Pacific dining-car; arrive at Pacific avenue station, Tacoma, 5.30 P. M.; omnibus transfer to The Tacoma, Fred. L. Presbrey, manager.

WEDNESDAY, Aug. 19. First Party.
WEDNESDAY, Sept. 30. Second Party.

Twenty-fourth Day.—In Tacoma. Omnibus transfer to the Pacific avenue station, and leave Tacoma, *via* the Northern Pacific Railroad, at 3.30 P. M.; arrive in Seattle 5.15 P. M.; omnibus transfer from the Northern Pacific station to The Rainier, F. D. Ray, manager.

NOTE.—It may be deemed advisable to divide the party for the visit to Tacoma and Seattle. In such an event, one section will first go to Seattle (arriving at 7.25 P. M. Tuesday), returning to Tacoma Wednesday afternoon in time to see the latter city.

THURSDAY, Aug. 20. First Party.
THURSDAY, Oct. 1. Second Party.

Twenty-fifth Day.—Omnibus transfer from The Rainier to the steamer landing, and leave Seattle at 10.15 A. M. *via* Puget Sound & Alaska Steamship Company's steamer "City of Kingston;" dinner on board the boat; arrive at Port Townsend 1.15 P. M.; leave Port Townsend 1.30 P. M.; arrive at Victoria, B. C., 5.30 P. M.; carriage ride, visiting various parts of the city, including Beacon Hill, Government House, the Government buildings, etc., and also Esquimalt (the British naval station) and the Gorge; supper at the Driard House, Redon & Hartnegel, proprietors; go on board the Canadian Pacific Navigation Company's steamer in the evening; stateroom berths furnished.

FRIDAY, Aug. 21. First Party.
FRIDAY, Oct. 2. Second Party.

Twenty-sixth Day.—Leave Victoria by steamer 3.00 A. M.; breakfast on board the steamer; arrive at Vancouver, B. C., 11.00 A. M.; dinner at the Hotel Vancouver, Sherman S. Gere, manager; leave Vancouver at 1.00 P. M. in Canadian Pacific sleeping-cars *via* Canadian Pacific Railway; supper at the Fraser Cañon House, North Bend, B. C., the Misses Mollison, managers.

SATURDAY, Aug. 22. First Party.
SATURDAY, Oct. 3. Second Party.

Twenty-seventh Day.—On the Canadian Pacific Railway *en route* eastward over the Selkirks and main range of the Rocky Mountains; breakfast on dining-car, dinner at Glacier House, and supper at the Mount Stephen House, Field; arrive at Banff, Alberta, 10.25 P. M.; the cars will be side-tracked, and the passengers will remain undisturbed until morning, when they will be transferred to the Banff Springs Hotel, W. L. Matthews, manager.

SUNDAY, Aug. 23. First Party.
SUNDAY, Oct. 4. Second Party.

Twenty-eighth Day.—At Banff Springs Hotel.

MONDAY, Aug. 24. First Party.
MONDAY, Oct. 5. Second Party.
Twenty-ninth Day.—At Banff Springs Hotel. Transfer to the cars in the evening, and leave Banff, *via* the Canadian Pacific Railway, at 10.25 P. M.

TUESDAY, Aug. 25. First Party.
TUESDAY, Oct. 6. Second Party.
Thirtieth Day.—On the Canadian Pacific Railway *en route* eastward through Alberta and Assiniboia; meals on Canadian Pacific dining-car.

WEDNESDAY, Aug. 26. First Party.
WEDNESDAY, Oct. 7. Second Party.
Thirty-first Day.—On the Canadian Pacific Railway *en route* eastward through Manitoba; meals on dining-car.

THURSDAY, Aug. 27. First Party.
THURSDAY, Oct. 8. Second Party.
Thirty-second Day.—On the Canadian Pacific Railway *en route* eastward through Ontario, and passing along the north shore of Lake Superior.

FRIDAY, Aug. 28. First Party.
FRIDAY, Oct. 9. Second Party.
Thirty-third Day.—On the Canadian Pacific Railway *en route* eastward through the Provinces of Ontario and Quebec. Meals on Canadian Pacific dining-car.

SATURDAY, Aug. 29. First Party.
SATURDAY, Oct. 10. Second Party.
Thirty-fourth Day.—Arrive in Montreal (Windsor street station) at 8.00 A. M.; omnibus transfer to the Windsor Hotel, George W. Swett, manager; carriage ride to the points of interest in the city, including Mount Royal Park and the Grey Nunnery.

SUNDAY, Aug. 30. First Party.
SUNDAY, Oct. 11. Second Party.
Thirty-fifth Day.—In Montreal.

MONDAY, Aug. 31. First Party.
MONDAY, Oct. 12. Second Party.
Thirty-sixth Day.—Omnibus transfer to the Windsor street station of the Canadian Pacific Railway, and leave Montreal by said line in drawing-room cars at 9.00 A. M.; dinner at the Memphremagog House, Newport, Vt.; from Newport to Wells River, Vt., *via* Boston & Maine Railroad system; from Wells River to Nashua, N. H., *via* Concord & Montreal Railroad; from Nashua to Boston *via* Boston & Maine Railroad system; arrive in Boston (Southern Division station of Boston & Maine Railroad, Causeway street) 8.50 P. M.

Distance Table.

	MILES.
From Boston to Rotterdam Junction, N. Y., Fitchburg Railroad	212
" Rotterdam Junction to Suspension Bridge, West Shore Railroad	290
" Suspension Bridge to Port Huron, Mich., Great Western Division of the Grand Trunk Railway	181
" Port Huron to Chicago, Chicago & Grand Trunk Railway	335
" Chicago to St. Paul, Wisconsin Central Division of Northern Pacific Railroad	462
" St. Paul to Minneapolis, and Minneapolis to Livingston, Mon., Northern Pacific Railroad	1,007
" Livingston to Cinnabar, Yellowstone Park Branch of Northern Pacific Railroad	51
" Cinnabar to Mammoth Hot Springs, stage	8
" Mammoth Hot Springs to Lower Geyser Basin, stage	43
" Lower Geyser Basin to Upper Geyser Basin, *via* Fountain Geyser and old road, stage	11
" Upper Geyser Basin to Lower Geyser Basin, *via* new road, Lower Geyser Basin to Yellowstone Lake, *via* the Trout Creek route, stage	45
" Yellowstone Lake to Grand Cañon Hotel, stage	17
" Grand Cañon Hotel to Mammoth Hot Springs, stage	34
" Mammoth Hot Springs to Cinnabar, stage	8
" Cinnabar to Livingston, Yellowstone Park Branch of Northern Pacific Railroad	51
" Livingston to Portland, Or., Northern Pacific Railroad	1,048
" Portland to Dalles City, Union Pacific Railway	88
" Dalles City to Upper Cascades, Union Pacific Railway Company's steamer	45
" Upper Cascades to Lower Cascades, Portage Railway	6
" Lower Cascades to Portland, Union Pacific Railway Company's steamer	62
" Portland to Tacoma, Northern Pacific Railroad	145
" Tacoma to Seattle, Northern Pacific Railroad	40
" Seattle to Victoria, Puget Sound & Alaska Steamship Company's steamer	83
" Victoria to Vancouver, Canadian Pacific Navigation Company's steamer	84
Distances carried forward	4,356

	MILES.
Distances brought forward	4,356
From Vancouver to Montreal, Canadian Pacific Railway	2,906
" Montreal to Newport, Vt., Canadian Pacific Railway	109
" Newport, Vt., to Wells River, Vt., Boston & Maine Railroad system	66
" Wells River to Nashua, N. H., Concord & Montreal Railroad	128
" Nashua to Boston, Boston & Maine Railroad system	40
Total	7,605

It will be seen that none of the incidental carriage rides are included in the foregoing enumeration, only the regular journeys by railway, steamer, and stage being taken into consideration.

In the course of the tour the parties will pass through the following States and Territories: *States*—Massachusetts, Vermont, New York, Michigan, Indiana, Illinois, Wisconsin, Minnesota, North Dakota, Montana, Wyoming, Idaho, Washington, Oregon, and New Hampshire (15); in the Dominion of Canada—the Provinces of Ontario, British Columbia, Manitoba, and Quebec (4), and the Districts of Alberta and Assiniboia (2); making altogether 21 different geographical divisions of the two countries.

Tickets for these excursions must be taken on or before Monday, July 6, for Excursion No. 1, and Monday, September 20, for Excursion No. 2, five days previous to the dates of departure.

W. RAYMOND.
I. A. WHITCOMB.

☞Tickets for the excursion, additional copies of this circular, and all needed information can be obtained of

RAYMOND & WHITCOMB, 296 Washington St. (opposite School St.), Boston, Mass.

SEASON OF 1891.

A GRAND TOUR

THROUGH THE

YELLOWSTONE NATIONAL PARK,

With a Complete Round of all the Points of Interest in

THAT LAND OF MARVELS,

And ample time for a thorough inspection of its many wonders. Incidental visits to

The Mammoth Hot Springs, Norris Geyser Basin, Lower Geyser Basin, Upper Geyser Basin, Yellowstone Lake, and Grand Canon of the Yellowstone;

AND ALSO TO

ST. PAUL, MINNEAPOLIS, NIAGARA FALLS, ETC.

The Party to Leave Boston Thursday, July 16,

And to Return Tuesday, August 4.

PRICE OF TICKETS (all Traveling Expenses Included), $225.00.

W. RAYMOND, I. A. WHITCOMB,

296 Washington Street (opposite School Street), Boston, Mass.

EXCURSION

TO THE

YELLOWSTONE NATIONAL PARK

1891—SEVENTH YEAR—1891

From July 16 to August 4.

For the convenience of persons who desire to visit the Yellowstone National Park, without making the longer trip to the Pacific Coast, we have arranged an excursion covering only that section of the route described in the preceding pages. All available time will be devoted to the park region without any abridgment of the essential feature of the trip. The plans for the round of travel through the great American Wonderland have been made upon the same generous scale outlined in connection with the other tours, and involving extra days within the park, extra stage service, and ample time for rest as well as sight-seeing. Tourists in general endeavor to crowd their journey through this region and the incidental sight-seeing into four or five days, with a result that is unsatisfactory in many ways. With the improvements that have been made in roads and hotels within the past few years, the added time means much. It means that many points of interest are seen that the hurried traveler must neglect, and, above all, it signifies time for rest after the long stage rides and opportunities to do one's sight-seeing in a systematic and comprehensive way.

While the time of the journeys to and from the park has been lessened, the trip is in no sense a hurried one. The outward journey is broken by a sojourn over Sunday at St. Paul or Minneapolis, and the homeward one by a visit to Niagara Falls, and also by a brief stay in Chicago. The entire trip will consume only twenty days. As the return tickets are good for independent use, passengers can stop at any other points desired. All railway travel will be in palace sleeping and drawing-room cars. Every person will be entitled to a double berth in the sleeping-cars (half a section). This gives four seats by day for every two persons. The cost of an extra double berth (a whole section for one person) from Boston back to Boston will be $29.

The journeys through the park — from Cinnabar to Mammoth Hot Springs, from the Springs to the Upper Geyser Basin, thence to Yellowstone Lake and the Yellowstone Cañon, and back to Mammoth Hot Springs and Cinnabar — will be made in comfortable spring wagons. There are hotels at all the points where halts are to be made for the night. It is no longer necessary to depend upon the primitive accommodations of the "Camps."

From Boston to Chicago.

The route of the excursion from Boston westward lies over the popular Hoosac Tunnel and West Shore lines. The party will leave the Fitchburg Railroad station, on Causeway street, Thursday, July 16. There will be a daylight ride through Central and Northwestern Massachusetts, and also through a large part of Central New York. From Suspension Bridge the route lies over the Great Western Division of the Grand Trunk Railway *via* Hamilton and London, through a pleasant part of Ontario Province to Point Edward, near Sarnia, where the cars are ferried across the St. Clair River to Fort Gratiot, near Port Huron. From this point to Chicago, we travel over

the Chicago & Grand Trunk Railway, which takes us through Southern Michigan and little corners of Indiana and Illinois.

From Chicago to St. Paul and Minneapolis.

Arriving in Chicago Friday evening, the party will make only a brief stay in that city, the train departing from the Wisconsin Central station, corner of Harrison street and Fifth avenue, at 10.45 P. M. The Wisconsin Central lines extend northward from Chicago, both to Lake Superior and to the chief cities of the Northwest. In connection with the Northern Pacific Railroad it forms one of the great arteries of travel and commerce through to the Pacific Coast. The southeastern section of Wisconsin will be passed through in the night, and the early morning will find us journeying through the central part of the State.

The Twin Cities.

Our train will reach St. Paul at 3.40 P. M. and Minneapolis at 4.15 P. M., and members of our excursion parties can spend Sunday in either city. The two places are only ten miles apart. The magnificent Hotel Ryan, of which Mr. Eugene Mehl is the proprietor, will be our headquarters in St. Paul; and the superb West Hotel, which is owned by Colonel John T. West, will be our sojourning-place in Minneapolis. These two establishments are splendidly appointed, and are among the finest hotels in America.

Some account of the two cities has been given in connection with our description of the other trips, and it is unnecessary to speak of them at greater length. Both are places of great interest to the traveler who wishes to see with his own eyes the tangible evidences of western enterprise and growth.

Westward on the Northern Pacific Railroad.

The party will resume its westward journey Monday morning, the route lying over the main line of the Northern Pacific Railroad. The train will leave St. Paul at 8.15 A. M., and Minneapolis at 8.45 A. M. The daylight ride takes us through rich and prosperous sections of Minnesota and North Dakota. We cross half a dozen or more counties of the former State, passing through Anoka, St. Cloud, Sauk Rapids, Little Falls, Staples, Verndale, Wadena, Perham, Detroit, Glyndon, and Moorhead. Between the latter and Fargo, the Red River flows, dividing the two States of Minnesota and North Dakota. Fargo is a handsome and stirring city, with many evidences of wealth and taste. On leaving Fargo we enter at once upon the great wheat-raising section of the State, passing through, before night-fall, some of the great bonanza farms. Mapleton, Dalrymple, Casselton, Wheatland, Buffalo, Tower City, Valley City, and Sanborn lie along this section of our route. Jamestown, another pretty city, is on the James River, and in the centre of another wheat-raising section. We pass through Bismarck and Mandan in the evening, crossing the Missouri between the two places. The former is the capital of the State.

We traverse the western part of North Dakota in the night, and Tuesday morning finds us across the border of the great State of Montana, in which we are to travel all day. Glendive is the first town of importance, and we here reach the banks of the Yellowstone River, which we follow up into the park. Beyond Glendive are Miles City (with Fort Keough three miles distant and near the railway), Forsyth, Custer, Billings, Park City, Big Timber, and other towns. Twenty-four miles west of Custer is the huge rock known as Pompey's Pillar, upon which Captain William Clark, the explorer, carved his name in May, 1806. In passing up the valley west of Billings the snow mountains begin to appear. We shall reach Livingston in the evening, and

our cars will be side-tracked for the night, before proceeding over a branch line to the Yellowstone National Park.

The Approach to the Park.

Leaving Livingston after breakfast Wednesday morning, we travel by the National Park Branch of the Northern Pacific to Cinnabar,— fifty-one miles,— and by stage thence to Mammoth Hot Springs. This journey occupies the forenoon, and forms a most delightful prelude to the wonders of the park itself. The railroad ascends the upper Yellowstone valley, being at all times beside the river and amid the mountains. The views of Emigrant Peak, Electric Peak, Cinnabar Mountain, and the other heights, which form the northern barriers of the park, are superb. The short stage ride, from Cinnabar to the Mammoth Hot Springs, is another charming experience. For the greater part of the way the road lies beside the swift flowing Gardiner River, at one point passing through a deep cañon.

The Yellowstone National Park.

We shall outline the park trip very briefly, as we have already described it quite fully in connection with the longer tours. The programme of travel will be the same, comprising over a week within the park limits and a complete round of all its leading points of interest.

The afternoon of Wednesday can be devoted to the springs and formations within a short distance of the hotel, which constitute the attractions here. The terraces, bearing many active springs, are of rare beauty. This expedition can best be taken on foot, as horses are not allowed upon the formations.

Thursday morning the party will set out from Mammoth Hot Springs in comfortable spring wagons, especially built for this service, and admirably adapted in every

way for the purpose. We ascend a fork of the Gardiner River, and, passing through the Golden Gate,—a formidable cañon with perpendicular walls, near the head of the stream,—emerge upon a high mountain plateau. Farther on, we pass the famous cliffs of Obsidian and Beaver Lake. Surmounting a long hill, we come to the dinner station in Norris Geyser Basin. The first active geysers are seen about a mile south of the hotel. Several large and powerful ones are included in this group.

The afternoon ride is for the most part along the banks of the Gibbon River and through some of its picturesque cañons. The traveler passes directly in front of the beautiful Gibbon Falls, and a platform has been hewn out of the solid rock to make room for the road and to enable him to gain the best possible view. On the summit of the hill reached just before the descent into the Lower Geyser Basin is made, a distant view is gained of the Three Tetons.

The night is passed at the Lower Geyser Basin Hotel, and a part of the succeeding forenoon is spent in an inspection of the Fountain Geyser, the Mammoth Paint Pots, Excelsior Geyser, Prismatic Lake, Turquoise Spring, etc., and in the short stage journey to the Upper Geyser Basin. In this latter, and chiefly within easy walking distance of the hotel, are the most celebrated geysers of the Yellowstone Park, including Old Faithful, the Bee Hive, Giantess, Lion, Lioness, Castle, Giant, Grotto, Grand, Splendid, Riverside, Fan, Mortar, etc. In addition to the geysers, some of which are frequently in action, are almost countless springs, some of which exhibit most exquisite formations and gorgeous coloring.

Leaving the Upper Geyser Basin Saturday morning, there is an interesting stage journey across the mountains to Yellowstone River and Lake. The route takes us back to the Lower Basin, thence up the East Fork of the Firehole, or Nez Perces Creek, over the "divide" to an elevation of 8,336 feet, down through the pleasant

stretches of Hayden valley, and southward along the banks of the Yellowstone. The hotel on the borders of the beautiful lake will be reached in the afternoon, and in this attractive retreat Sunday will be passed.

A short stage ride on Monday will take us to the Yellowstone Cañon and Falls — the crowning glories of all. There will be ample time to inspect both the cañon and the beautiful falls. The hotel is situated upon an elevated plateau overlooking a large expanse of the country east of the Yellowstone River.

A part of Tuesday will be devoted to the journey back to Mammoth Hot Springs, where the party will be due about 5.00 P. M. The early part of this ride lies over a new route between the cañon and Norris Geyser Basin. The Virginia Cascades are upon this route. Tuesday night and Wednesday forenoon will be passed at Mammoth Hot Springs, so that members of the party have time for further sight-seeing, and to prepare for their homeward journey.

Over the Northern Pacific Railroad Eastward.

Leaving the hotel at Mammoth Hot Springs Wednesday noon by stage, we shall proceed to Cinnabar, where our special Pullman cars will be in waiting for the return journey over the Northern Pacific Railroad eastward to St. Paul. On leaving Cinnabar, the train will descend the Yellowstone valley to Livingston. The route to Minneapolis and St. Paul will be the same one taken in the outward journey, and Thursday will be passed upon the road in Montana and North Dakota. Meals will be served during this journey in one of the elegant dining-cars of the Northern Pacific Railroad. A considerable portion of the route that was passed over in the night on the westbound trip will be seen by daylight on the return, including a large part of the wheat country, the lake region, and the upper Mississippi valley, in Minnesota. The famous "Bad Lands" of Dakota will also be passed through in the daytime.

From St. Paul to Chicago.

The return party will reach St. Paul late in the afternoon of Friday, July 31, and at once proceed over the Wisconsin Central line, leaving the Union station at 7.15 P. M. The train will reach Chicago at 9.59 A. M. Saturday.

From Chicago Eastward.

There will be a transfer by Parmelee's omnibuses from the Wisconsin Central station to the Dearborn station (Polk and Dearborn streets, between Third and Fourth avenues), where dinner will be provided, and from whence the party will depart, *via* the Chicago & Grand Trunk Railway, at 3.15 P. M. Supper will be provided on a Chicago & Grand Trunk dining-car. The route eastward is over the road mentioned and the Great Western Division of the Grand Trunk Railway.

Persons returning from Chicago independently will be required to exchange their east-bound passage and sleeping-car coupons either at the city office of the Chicago & Grand Trunk Railroad, 103 South Clark street, Chicago, E. H. Hughes, agent, to whom any application in advance for sleeping-car berths can be addressed, or at the Dearborn station. In order to avail themselves of the stop at Niagara Falls, passengers should leave Chicago by the "Limited Express" at 3.15 P. M. Niagara Falls is the only point east of Chicago where "stop-over" privileges can be allowed.

Niagara Falls.

Sunday and a large part of Monday will be passed at Niagara Falls, the party making its headquarters either at the Cataract House or the International Hotel. Both hotels are situated in proximity to the great cataract, Prospect Park, Goat Island, and the other points of interest.

Leaving Niagara Falls by the West Shore route at 4.48 P. M. Monday, the party will proceed eastward, and arrive in Boston (Fitchburg Railroad station, Causeway street) at 9.50 the succeeding morning.

Price of Tickets.

The price of tickets for the excursion described in the foregoing pages is TWO HUNDRED AND TWENTY-FIVE DOLLARS. This sum covers all needed expenses of the entire round trip from Boston back to Boston, inclusive of the following items: All transportation by rail and stage lines; a double berth (one-half section) in the Wagner or Pullman palace sleeping-cars during the railway journeys; all wagon transportation within the park in accordance with the itinerary; hotel accommodations in St. Paul or Minneapolis, at Mammoth Hot Springs, Lower Geyser Basin, Upper Geyser Basin, Yellowstone Lake, and Yellowstone Grand Cañon (the five park hotels), and at Niagara Falls; incidental meals at hotels, dinings-stations, stage stations, and in dining-cars; omnibus transfers in Chicago, St. Paul or Minneapolis, and Niagara Falls; transportation and care of all checked baggage, and the services of conductors.

ITINERARY.

THURSDAY, July 16. *First Day.*— Leave Boston at 8.30 A. M. from the station of the Fitchburg Railroad, Causeway street, *via* the Hoosac Tunnel line, in Wagner sleeping and drawing-room cars. On arriving at the station members of the party should check their baggage to St. Paul. The checks will be taken up on the train, and the baggage will be delivered at the rooms of the owners in the hotel in St. Paul. Tags are supplied with the excursion tickets, and these, with the owner's name and home address plainly inscribed thereon, should be attached to every trunk, valise, or other piece of baggage, to serve as a ready means of identification. Dinner at the station dining-rooms, North Adams, Mass.; from Rotterdam Junction westward on West Shore Railroad; supper at the station dining-rooms, Syracuse.

FRIDAY, July 17. *Second Day.—En route* westward. From Suspension Bridge *via* the Great Western Division of Grand Trunk Railway; breakfast at station dining-rooms, Point Edward; from Fort Gratiot westward on Chicago & Grand Trunk Railway; dinner at station dining-rooms, Battle Creek, Mich.; arrive in Chicago 6.25 P. M.; transfer by Parmelee's omnibuses from the Dearborn station (Polk and Dearborn streets) to the station of the Wisconsin Central division of the Northern Pacific Railroad (Harrison street and Fifth avenue); supper at dining-rooms in latter station; leave Chicago *via* Wisconsin Central line at 10.45 P. M., in Pullman palace sleeping-cars.

SATURDAY, July 18. *Third Day.*— On the Wisconsin Central line *en route* through Wisconsin and Minnesota; breakfast and dinner on Wisconsin Central dining-car; arrive at St. Paul 3.40 P. M.; transfer by Cook & Son's omnibus line to the Hotel Ryan, Eugene Mehl, proprietor.

NOTE.— Members of the party who desire to remain over Sunday in Minneapolis can continue on from St. Paul, arriving in Minneapolis at 4.15 P. M. There will be a transfer by Mattison's omnibus line from the Chicago, Milwaukee & St. Paul Railway station to the West Hotel, John T. West, proprietor.

SUNDAY, July 19. *Fourth Day.*— In St. Paul or Minneapolis.

MONDAY, July 20. *Fifth Day.*— In St. Paul or Minneapolis. Omnibus transfer to the Union station, and leave St. Paul at 8.15 A. M., and Minneapolis at 8.45 A. M., *via* Northern Pacific Railroad, in Pullman palace sleeping-cars; dinner and supper on Northern Pacific dining-car.

TUESDAY, July 21. *Sixth Day.*— On Northern Pacific Railroad *en route* through North Dakota and Montana. Meals on Northern Pacific dining-car; arrive at Livingston 8.15 P. M. The cars will remain upon a side track until morning.

WEDNESDAY, July 22. *Seventh Day.*— Breakfast at the Albemarle Hotel; leave Livingston, *via* the National Park Branch of the Northern Pacific Railroad, at 8.15 A. M.; arrive at Cinnabar 10.18 A. M.; leave Cinnabar by George W. Wakefield's stage line at 10.30 A. M.; arrive at Mammoth Hot Springs Hotel 12.00 M.

THURSDAY, July 23. *Eighth Day.*— Leave Mammoth Hot Springs in George W. Wakefield's stages at 8.00 A. M. for the tour through the park; arrive at Norris Geyser Basin 12.30 P. M.; dinner there; leave Norris Geyser Basin 1.30 P. M., passing near the principal geysers in this basin, including the Hurricane,

the Monarch, the Minute Man, etc., and later near the Gibbon Falls; arrive at the Lower Geyser Basin Hotel 6.30 P. M.

FRIDAY, July 24. *Ninth Day.*— Leave Lower Geyser Basin at 8.00 A. M., and visit the Fountain Geyser, the Paint Pots, Excelsior Geyser (or Hell's Half-Acre), Turquoise Spring, Prismatic Spring, and other objects of interest between the Lower and Upper Geyser Basins; arrive at the Upper Geyser Basin Hotel 11.00 A. M. The hotel is situated near Old Faithful, the Bee Hive, Giantess, Castle, and others of the great geysers.

SATURDAY, July 25. *Tenth Day.*— Leave Upper Geyser Basin 8.00 A. M.; arrive at Trout Creek at 1.00 P. M.; dinner there; leave Trout Creek 2.00 P. M.; arrive at Yellowstone Lake Hotel 4.00 P. M.

SUNDAY, July 26. *Eleventh Day.*— At Yellowstone Lake.

MONDAY, July 27. *Twelfth Day.*— Leave Yellowstone Lake at 8.00 A. M.; arrive at Grand Cañon Hotel at 12.00 M.

TUESDAY, July 28. *Thirteenth Day.*— Leave Grand Cañon Hotel 10.30 A. M.; arrive at Norris Geyser Basin 12.30 P. M.; dinner there; leave Norris Geyser Basin 1.30 P. M.; arrive at Mammoth Hot Springs Hotel 5.30 P. M.

WEDNESDAY, July 29. *Fourteenth Day.*— Leave Mammoth Hot Springs 2.00 P. M.; arrive at Cinnabar 3.15 P. M.; leave Cinnabar, *via* National Park Branch of the Northern Pacific Railroad, 3.45 P. M.; arrive at Livingston 6.45 P. M.; supper at Albemarle Hotel; leave Livingston on main line of Northern Pacific Railroad in Pullman palace sleeping-cars at 10.00 P. M.

THURSDAY, July 30. *Fifteenth Day.*— On Northern Pacific Railroad *en route* eastward through Montana and North Dakota. Meals on Northern Pacific dining-car.

FRIDAY, July 31. *Sixteenth Day.*— On the Northern Pacific Railroad *en route* through North Dakota and Minnesota. Breakfast and dinner on dining-car; arrive at St. Paul 12.40; supper at Union station dining-rooms; leave St. Paul, *via* Wisconsin Central line, at 7.15 P. M.

SATURDAY, August 1. *Seventeenth Day.*— Breakfast on Wisconsin Central dining-car; arrive in Chicago (Wisconsin Central station, corner Harrison street and Fifth avenue) 9.59 A. M.; transfer by Parmelee's omnibus line to the Dearborn station (Polk and Dearborn streets); dinner at station dining-rooms; leave Chicago, *via* Chicago & Grand Trunk Railway, at 3.15 P. M.; supper on dining-car.

NOTE.— Members of the party who return independently from Chicago will be required to exchange their east-bound passage and sleeping-car coupons at the city ticket office of the Chicago & Grand Trunk Railway, 103 South Clark street, Chicago, E. H. Hughes, agent (to whom all applications in advance for sleeping-berths should be addressed), or at the station ticket office, Polk and Dearborn streets. Persons desirous of availing themselves of the "stop-over" privilege at Niagara Falls should take the "Limited Express," leaving Chicago at 3.15 P. M., and, arriving at Niagara Falls the next morning, await there the arrival of the Atlantic express in the afternoon. Niagara Falls is the only point east of Chicago where "stop-over" privileges are allowed.

SUNDAY, August 2. *Eighteenth Day.*— At the Cataract House or International Hotel, Niagara Falls.

MONDAY, August 3. *Nineteenth Day.*— At the Cataract House or International Hotel, Niagara Falls. Omnibus transfer to the New York Central & Hudson River Railroad station, and leave Niagara Falls, *via* the West Shore line, at 4.48 P. M.; supper at the station dining-rooms, Buffalo.

TUESDAY, August 4. *Twentieth Day.*— Breakfast at station dining-rooms, Athol, Mass.; arrive in Boston (Fitchburg Railroad station, Causeway street) at 9.50 A. M.

Distance Table of the Yellowstone National Park Tour.

	MILES.
From Boston to Rotterdam Junction, N. Y., Fitchburg Railroad	212
" Rotterdam Junction to Suspension Bridge, West Shore Railroad	290
" Suspension Bridge to Port Huron, Mich., Great Western Division of the Grand Trunk Railway	181
" Port Huron to Chicago, Chicago & Grand Trunk Railway	335
" Chicago to St. Paul, Wisconsin Central Division of Northern Pacific Railroad	462
" St. Paul to Livingston, Mon., Northern Pacific Railroad	1,007
" Livingston to Cinnabar, Yellowstone Park Branch of Northern Pacific Railroad	51
" Cinnabar to Mammoth Hot Springs, stage	8
" Mammoth Hot Springs to Lower Geyser Basin, stage	43
" Lower Geyser Basin to Upper Geyser Basin, *via* Fountain Geyser and old road, stage	11
Distances carried forward	2,600

	MILES.
Distances brought forward	2,600
From Upper Geyser Basin to Lower Geyser Basin, *via* new road, Lower Geyser Basin to Yellowstone Lake, *via* the Trout Creek route, stage	45
" Yellowstone Lake to Grand Cañon Hotel, stage	17
" Grand Cañon Hotel to Mammoth Hot Springs, stage	34
" Mammoth Hot Springs to Cinnabar, stage	8
" Cinnabar to Livingston, Yellowstone Park Branch of Northern Pacific Railroad	51
" Livingston to St. Paul, Northern Pacific Railroad (main line)	1,007
" St. Paul to Chicago, Wisconsin Central line	462
" Chicago to Port Huron, Mich., Chicago & Grand Trunk Railway	335
" Port Huron, Mich., to Suspension Bridge, Great Western Division of Grand Trunk Railway	181
" Suspension Bridge to Rotterdam Junction, West Shore Railroad	290
" Rotterdam Junction to Boston, Mass.	212
Total	5,242

In the course of the tour the excursion party will pass through parts of the following States: Massachusetts, Vermont, New York, Michigan, Indiana, Illinois, Wisconsin, Minnesota, North Dakota, Montana, and Wyoming (11), and also the Province of Ontario in Canada.

Tickets for this excursion must be taken on or before Saturday, July 11, five days previous to the date of departure.

W. RAYMOND.
I. A. WHITCOMB.

☞ Tickets for the excursion, additional copies of this circular, and all needed information can be obtained of

RAYMOND & WHITCOMB, 296 Washington Street (opposite School Street), Boston, Mass.

NEW YORK OFFICE, 257 BROADWAY, RAYMOND & WHITCOMB.

Philadelphia Office,
111 SOUTH NINTH STREET, under Continental Hotel,
RAYMOND & WHITCOMB.

Chicago Office:
103 SOUTH CLARK STREET, cor. Washington Street,
E. H. HUGHES, Agent.

London Office, 142 Strand, W. C.
HENRY GAZE & SON,
European Agents for Raymond's American Excursions.

Agents on the Pacific Coast.

SAN FRANCISCO OFFICE,
36 MONTGOMERY ST.,
(CORNER SUTTER STREET),
CLINTON JONES, Agent.

LOS ANGELES OFFICE,
138 SOUTH SPRING ST.,
RAYMOND & WHITCOMB,
F. W. THOMPSON, Agent.

PORTLAND (Or.) OFFICE,
No. 83 FIRST STREET,
CHARLES KENNEDY, Agent.

During the winter months Agencies are also located at

THE RAYMOND, EAST PASADENA, CAL., and at 26 MONTGOMERY ST., Room 6.

Clothing for the Journey.

Although the excursions are to be made in the warm months of the year, there will be reason to guard against cool weather within the Yellowstone National Park, where frosts are of almost nightly occurrence through the summer season; and also in the journey over the Canadian Pacific Railway in October. In the railway journeys in July and August, both by the Northern Pacific and Canadian Pacific lines, warm weather is likely to be encountered. In the Pacific Northwest the temperature is very genial. It would be a good plan to carry a suit of clothing especially for service within the park, and this should be of such stout material as to stand a bit of "rough work," if any such be thought desirable in the tramps among the springs and geysers. Stout boots or shoes are prime necessities, inasmuch as the surface of the geyser mounds, and in many places large tracts of territory to be walked over in visiting the chief points of interest, are rough. Some persons may also find rubber overshoes of use, as there are many wet places around the geysers and hot springs. For gentlemen woolen traveling shirts are far more serviceable than the starched article. There are no "dress occasions" within the park, at least beyond the hotel at Mammoth Hot Springs; and only to that point will the heavy or checked luggage be conveyed, hand parcels only being taken in the wagons which carry the visitors around the park. Rubber overcoats and waterproofs, will, of course, suggest themselves. "Dusters" will doubtless be of use in the railway journeys, as they are in all parts of the country.

GUIDE BOOKS, ETC.

The books of travel and adventure relating to the Pacific Coast and to the diverse sections of country passed through in the various routes across the continent are legion, and we will not attempt to give even a partial list.

Across the Continent.

There are numerous guide books of a local character that may be purchased in the principal localities visited, but there is a lack of comprehensive books of this class covering the long transcontinental routes. The publications of the several railroad companies are generally very useful in this connection, and the same may be said regarding maps. Both the Northern Pacific and the Canadian Pacific Companies issue descriptive pamphlets containing much information. *A Journey through Wonderland*, by Elia W. Peattie (Northern Pacific), and *The New Highway to the Orient* (Canadian Pacific) are the best of these.

The Great Northwest, a guide book and itinerary for the use of travelers over the Northern Pacific Railroad and its allied lines, is published by Riley Brothers, St. Paul.

A History of the Northern Pacific Railroad, by E. V. Smalley, is an account of this great enterprise from the time of its inception, in 1834, to the opening of the road, in 1883.

Daylight Land, by W. H. H. Murray, is an account of a journey over the Canadian Pacific Railway.

The New West (Winnipeg, 1888) is an account of the country lying between the Great Lakes and the Pacific, with statistics and sketches of business enterprises.

B. C. 1887, A Ramble in British Columbia, by J. A. Lees and W. J. Clutterbuck, is a book of travel published in London in 1888.

The Yellowstone National Park.

The Fifth Annual United States Geological Report (for 1871) contains Dr. F. V. Hayden's original account of the Yellowstone Park region; and the subsequent volumes also contain much relating thereto, the fullest and most exhaustive account yet prepared appearing in the most recently published *Report* (the Twelfth for 1878). Part II. (503 pages), together with numerous maps, includes interesting contributions by W. H. Holmes on the Geology of the Park, Dr. A. C. Peale on Thermal Springs, and Henry Gannett on the Topography of the Park.

The reports of Captain William A. Jones, General W. F. Reynolds, Rossiter W. Raymond, Captain J. W. Barlow, Captain D. P. Heap, Professor F. B. Comstock, General W. T. Sherman, General P. H. Sheridan, Superintendent N. P. Langford, P. W. Norris, and P. H. Conger, and others will be found in documents printed by order of the government.

The American Encyclopædia, *Johnson's New Universal Encyclopædia*, *Picturesque America*, *Scribner's Magazine* for 1871, '72, and '73, *Lippincott's Magazine* for 1880, *The Southern Magazine* for 1871, *Appleton's Journal* for 1881, *Nature* for 1872, *Chamber's Journal* for 1882, and the *United States Census Report* for 1880 all contain articles relating to the park; and the later works on geology by Geikie, Dana, and Le Conte have scientific references to its marvels.

There are many books of travel relating to the park, and among them are *The Great Divide*, by Lord Dunraven; James Richardson's *Wonders of the Yellowstone; Horseback rides through the Yellowstone Park*, by H. J. Norton; *Camp and Cabin*, by Rossiter W. Raymond; *Rambles in Wonderland*, by Edwin J. Stanley; *A Pilgrimage to Geyser Land; or, Montana on Muleback*, by Ellsworth Spencer; *Rambles Overland*, by Rev.

Almond Gunnison, D. D.; and *The New Eldorado*, by Maturin M. Ballou. The latter is a late work devoted largely to Alaska, but descriptive also of a visit to the park, and of journeys over both the Northern Pacific and Canadian Pacific lines.

A complete list of all works having reference to the Yellowstone Park (published previous to 1882), and also lists of authorities on the thermal springs of all parts of the world, will be found in *Hayden's Twelfth Report* (Part II., pages 427–499).

Professor Arnold Hague's paper — *Geological History of the Yellowstone National Park* — appears in the "Transactions of the American Institute of Mining Engineers for 1887."

Oregon and Washington.

The Wealth and Resources of Oregon and Washington, by C. N. Miller (1889), issued by the Union Pacific Railway Company, is the latest work relating to the Pacific Northwest. It has been carefully prepared, and contains many interesting facts regarding that growing section of the country.

Washington Irving's *Astoria* and Lewis and Clark's narrative of their expedition give interesting accounts of the early explorations in Oregon and other parts of the Pacific Northwest.

The West Shore, an illustrated weekly, issued by the West Shore Publishing Company, Portland, Or., at $4 per year, is devoted largely to descriptive articles of the Pacific Northwest. A similar publication (issued monthly) is *The Northwest*, published by E. V. Smalley, St. Paul, Minn., at $1.50 per year. *Lewis and Dryden's Railway Guide*, published at Portland monthly, at $1 per annum, is the official organ of northwestern transportation lines, and is also devoted to the development of that section of the country.

Photographs.

F. J. Haynes & Brother, of St. Paul, Minn., have made a specialty of photographing the geysers and other wonders of the Yellowstone National Park. Their views are sold at the Mammoth Hot Springs, and also at No. 392 Jackson street, St. Paul, where tourists will be welcomed at all times. Catalogues will be sent from St. Paul on application. *The Yellowstone National Park in Photo-gravure* is the title of a magnificent collection of views issued by this firm.

Standard Time Divisions.

OUTWARD TRIP.— From Boston to Port Huron, Mich., Eastern standard or 75th meridian time; Port Huron to Mandan, No. Dak., Central standard or 90th meridian (one hour slower than Eastern time); from Mandan through the Yellowstone National Park, and to Hope, Id., Mountain standard or 105th meridian time (two hours slower than Eastern time); from Hope westward to the Pacific Coast, Pacific standard or 120th meridian time (three hours slower than Eastern time).

HOMEWARD TRIP.— From the Pacific Coast to Donald, Province of British Columbia, Pacific standard; from Donald to Brandon, Province of Manitoba, Mountain standard (one hour faster than Pacific time); from Brandon to Port Arthur, Province of Ontario, Central standard (two hours faster than Pacific standard); from Port Arthur eastward, Eastern standard (three hours faster than Pacific time).

TWO GRAND EXCURSIONS

TO

ALASKA.

The Outward Route from Ocean to Ocean over the CANADIAN PACIFIC RAILWAY, and the Return over the NORTHERN PACIFIC RAILROAD,

WITH A WEEK IN THE YELLOWSTONE NATIONAL PARK.

An Unsurpassed Tour of Fifty Days over the most Picturesque Routes in the World.

Price of Tickets (all Traveling Expenses Included), . . $500.00.

Dates of Leaving Boston, Saturday, July 11, and Saturday, July 25.

WE have planned two unusually attractive excursions for the coming summer, with the North Pacific Coast and Alaska as the chief objective points. Incidentally there will be a journey through the Canadian Dominion, over the entire length of the picturesque Canadian Pacific Railway, and, after the matchless voyage to Alaska and back, a return trip over the no less interesting Northern Pacific Railroad route, with a divergence of a week through the Yellowstone National Park. The voyage to Alaska will be made on one of the finest passenger steamers of the Pacific Coast Steamship Company's fleet, "The Queen," Captain James Carroll. The voyage will cover about twelve days, and all the famous scenic points in Southern Alaska, which have made

the Alaska trip so famous, will be visited, including Fort Wrangel, Juneau, Douglas Island, Sitka, Lynn Canal, and the great Muir Glacier, on Glacier Bay. There will be time for landing and sight-seeing at all the chief points of interest, and everywhere tourists will have unsurpassed opportunities for scanning the wonderful scenery of our northernmost possessions, and for studying the quaint and primitive native life. The voyage to Alaska is chiefly through inland waters, and the entire route is lined with scenes of wonderful and awe-inspiring character — mountains of great height, with fathomless depths at their very feet; cascades, which seem to tumble from the sky itself; densely wooded shores, whose solitudes have never yet been invaded by man; and vast fields of snow and ice, which glow in the sunlight like plains of gold and silver. Thousands of mountain peaks are seen that no man has ever visited, and that are as yet even unnamed. In Alaska, great glaciers, many fold larger than the grandest ice fields of Switzerland, flow down to the sea, mingling with the floods of the ocean, and breaking off in huge masses of fantastical shapes. In no part of the world is there so much wild grandeur encompassed in a voyage of equal duration.

The parties will leave Boston Saturday, July 11, and Saturday, July 25. Sunday will be passed in the Canadian "City of Churches," Montreal. The ensuing week will be occupied in the journey over the great Canadian Pacific Railway, which traverses the long line of provinces, extending from the Atlantic to the Pacific Ocean. After passing through the great wilderness lying north of Lake Superior and the Lake of the Woods, the parties will make a brief visit to Winnipeg, the interesting capital of Manitoba. From this point the railway stretches across the rich prairie section of Manitoba and over the plains of Assiniboia and Alberta, which are divisional parts of the great Northwest Territory of former years. At Calgary the traveler approaches the Rocky Mountains, which are here very lofty; and thence-

forward, for over 700 miles, the scenery is of the grandest character. The mountain crests are covered with huge glaciers, and the railway passes through cañons and ravines wonderful in their picturesque grandeur and wildness. Descending to the Columbia River, and crossing that noble stream, another mountain range — the precipitous Selkirks — is ascended. Here the scenery is even grander than in the first range. Gigantic cascades leap down the mountain-side, and great fields of ice are seen on some of the slopes. The train runs near several of the glaciers. The Columbia is again crossed, the Selkirks here occupying a great bend of the river, and there is more wild scenery in the Gold range. Then the lake region of British Columbia is crossed, and the train once more plunges into a remarkably picturesque mountain district — the Coast range. It follows the windings of the Fraser River through this region amid scenes of the wildest beauty, before emerging upon the coast of the Gulf of Georgia, which forms the northern extension of beautiful Puget Sound. Two days will be passed at the famous Banff Hot Springs, which are situated in one of the wildest nooks of the Rocky Mountains, and a part of a day at Glacier House, in proximity to the great glaciers of the Selkirks.

From the terminus of the railway at Vancouver, the parties will proceed by steamer to Victoria, where the Alaska voyage, on the splendid steamer "Queen," will have its beginning. The ensuing twelve days will be spent in viewing the grand scenery and the quaint pictures of aboriginal life on the British Columbian Coast and in Alaska.

Returning from Alaska to Puget Sound, visits will be made to Port Townsend, Seattle, and Tacoma, and later there will be a trip over the Pacific Division of the Northern Pacific Railroad to Portland, Oregon's handsome metropolis. An excursion up the Columbia River through the picturesque regions of the Cascades, and as far as Dalles City, will also be a feature of this part of the tour.

Then will follow a journey over the entire length of the Northern Pacific Railroad from Portland to St. Paul, a distance of over 2,000 miles. The Cascade Division, with its grand mountain views, the lake region of Idaho, the river cañons and mountain fastnesses of Montana, the great Yellowstone valley, and the vast wheat fields of North Dakota are among the many incidental features of this notable railway journey. At Livingston the party will turn aside for a week's tour through the Yellowstone National Park. The Mammoth Hot Springs, Norris Geyser Basin, Lower Geyser Basin, Upper Geyser Basin, Yellowstone Lake, and Yellowstone Falls and Cañon will in turn be seen.

On the homeward trip there will be brief visits to St. Paul, Minneapolis, Chicago, and Niagara Falls.

W. RAYMOND.
I. A. WHITCOMB.

☞Copies of the full descriptive circular, together with all needed information, can be obtained of

RAYMOND & WHITCOMB, 296 Washington St. (opposite School St.), Boston, Mass.

GRAND TOUR OF SIXTY-TWO DAYS

ACROSS THE CONTINENT,

INCLUSIVE OF A WEEK IN THE

YELLOWSTONE NATIONAL PARK,

WITH A VISIT TO

CALIFORNIA

AND A RETURN HOMEWARD THROUGH ARIZONA, NEW MEXICO, COLORADO, ETC.

The Party to Leave Boston Monday, September 7.

Price of Tickets (all Traveling Expenses Included), . . $525.00.

A PARTY will leave Boston Monday, September 7, for a visit to the Yellowstone National Park, the Pacific Northwest, and California, with a return homeward by the Atchison, Topeka & Santa Fe route. This is a grand round of sixty-two days, over a route between 9,000 and 10,000 miles in extent. Persons who desire can extend their so-

journ on the Pacific Coast six months, the tickets for the journeys through California and homeward being good for that length of time. Chicago, St. Paul, and Minneapolis will be visited on the outward trip, and a complete round of the Yellowstone National Park will be made, with ample time for its thorough inspection. Arriving on the Pacific Coast, the party will visit Seattle, Tacoma, Port Townsend, and Victoria, and later Portland and the picturesque Columbia River.

The overland trip from Oregon to California will be a feature of great interest. There are many fine mountain views upon the route; and the most picturesque section of the journey, including the passage through the upper Willamette and Sacramento valleys, over the Siskiyou Mountains, and through the grand Mount Shasta region, will be made by daylight. Mount Shasta is 14,442 feet in elevation, and rises in a shapely, snow-covered mass far above the beautiful stretches of Strawberry valley. It is an extinct volcano, and one of the loftiest and grandest mountain forms on the Pacific Coast. The railway line is a part of the great Southern Pacific system. We continue southward, with Shasta long in view, descending into the broad and fruitful valley of the Sacramento, which we traverse for its entire length.

San Francisco will be reached *via* Oakland, and during our sojourn in the handsome city by the Golden Gate we shall make our home at the magnificent Palace Hotel. There will be ample time, not only for an inspection of San Francisco, but also for a series of delightful excursions to other interesting points. A programme feature will be a trip to Monterey, Santa Cruz, and San Jose, with a stage excursion from the latter point to the Lick Observatory, on the summit of Mount Hamilton.

The journey will be continued from San Francisco southward over the Southern Pacific Company's line, and the next halt will be made in the garden spot of the Pacific Coast — Southern California. There will be special visits to Santa Barbara, Pasadena,

Los Angeles, San Diego, and other places of interest; and, as the excursion tickets permit the holder to remain upon the Pacific Coast until the ensuing spring, the charms of Southern California may be enjoyed to the fullest extent.

While the programme date of departure from Southern California on the homeward trip is October 30, yet individuals can prolong their stay, as already pointed out, with the opportunity of joining subsequent returning parties under special escort, or of traveling independently, the tickets being good upon any first-class train. If desired, a prolonged stay may be made at San Francisco, or in any other part of Central or Southern California. On the way southward, a divergence may be made from the main route at Berenda, for the purpose of visiting the Yosemite valley and Big Trees. A railroad line extends from Berenda to Raymond, and the farther journey is made by stage. It should be noted that the time chosen for our visit to California is at the height of the grape-gathering season, when the vineyards will have an especial charm.

The homeward route from Southern California will be over the Atchison, Topeka & Santa Fe line, which takes the traveler through very picturesque sections of Arizona, New Mexico, and Colorado, and in proximity to some of the quaint habitations of the Pueblo Indians and the still stranger places of abode of prehistoric races. The southern border-land is filled with romance and historic interest; and much of the old Spanish life, with its peculiar manners and customs, is yet seen in its half-Mexican towns.

A halt will be made at Las Vegas Hot Springs, a Sunday being passed at The Montezuma. After journeying through Arizona and New Mexico, crossing the Raton Mountains, from the latter into Colorado, and then traversing the great State of Kansas, Kansas City and the Missouri River are reached. We here transfer from the Santa Fe line to the popular Chicago, Rock Island & Pacific Railway, for the

farther ride through Missouri, Iowa, and Illinois to Chicago. On leaving that city, we journey eastward over the Chicago & Grand Trunk Railway.

A halt will be made at Niagara Falls, and time afforded there for an inspection of the great cataract and all the other points of interest. The party will reach Boston on the morning of Saturday, November 7.

W. RAYMOND,
I. A. WHITCOMB.

☞ The full descriptive circular and all other information desired can be obtained of

RAYMOND & WHITCOMB, 296 Washington St. (opposite School St.), Boston, Mass.

A GRAND AUTUMN TRIP

TO

SOUTHERN CALIFORNIA,

BY A DIRECT AND EXPEDITIOUS ROUTE.

The Return Tickets by Four Different Routes, Good for Six Months.

Date of leaving Boston, Monday, October 12.

In addition to our autumn excursion to the Pacific Coast over the Northern Pacific Railroad, we shall have a trip to Southern California over the direct line of the Atchison, Topeka & Santa Fe Railroad, the date of departure being Monday, October 12. This excursion is intended for persons who desire to reach Southern California by a direct route and as expeditiously as may be consistent with perfect comfort. The halts by the way are intended for rest, and will comprise a stay at Chicago from Wednesday morning until Thursday afternoon, and a sojourn at Las Vegas Hot Springs over Sunday. Pasadena, Los Angeles, Riverside, San Diego, Santa Monica, Santa Barbara, and other points in Southern California will be reached on the ninth day, and San Francisco the day following. The trip will be carried out upon the same plan that has made our winter excursions of the past few years so acceptable and popular, and ticket-holders will possess all the advantages given in connection with the later excursions in the season of 1891–92. The tickets supply every needed comfort during the transits to and from California, including sleeping-car accommodations, meals, transfers, and board at hotels, but leave the holders to

dispose of their time in California in accordance with their own preferences. Hotel coupons, which supply board at the leading hotels at reduced rates, may be availed of for the whole or a part of the time, if desired; and our excursions to Mexico, the Sandwich Islands, and elsewhere, which are to take place in the course of the season, may also be included. The return tickets are good for six months, and the purchaser can journey eastward by any of four different routes, making his selection when he applies for his ticket. There will be returning excursions under personal escort over all these routes, and the tickets are equally good for independent use on any train, insuring in all cases first-class accommodations and privileges. With every ticket there are coupons enabling the holder to visit many of the leading health and pleasure resorts of California, including not only Pasadena and Los Angeles, but also San Diego, Riverside, Redondo Beach, Santa Barbara, San Francisco, San Rafael, Monterey, Santa Cruz, San Jose, and the summit of Mount Hamilton. These may be used at any time during the season, so that the holder can move about from place to place as circumstances and individual taste may dictate.

The return routes are as follows: Route A, Atchison, Topeka & Santa Fe line; Route B, Union Pacific line; Route D, Denver & Rio Grande line; Route E, Southern Pacific Company's Oregon line to Portland, and thence eastward over the Northern Pacific Railroad. There will be a number of returning parties under personal escort by each route.

W. RAYMOND.
I. A. WHITCOMB.

☞ Descriptive circulars, tickets, and all required information regarding the excursion can be obtained of

RAYMOND & WHITCOMB, 296 Washington St. (opposite School St.), Boston, Mass.

A LIST OF

THIRTY SUMMER TRIPS

—TO—

EASTERN RESORTS

In July and August, 1891.

Summer Excursion No. 1, July 7-15.—Isles of Shoals, Mount Desert, Green Mountain, Moosehead Lake, Mount Kineo House, Old Orchard Beach, etc.

Summer Excursion No. 2, July 7-13.—The White Mountains, including North Conway, White Mountain Notch, Crawford House, Mount Pleasant House, Fabyan House, Mount Willard, a night on the summit of Mount Washington, Profile House, Flume House, Flume, Pool, etc.

Summer Excursion No. 3, July 7-15.—The White Mountains (including White Mountain Notch, Crawford House, and Fabyan House), Montreal, St. Lawrence and Saguenay Rivers, Quebec, Falls of Montmorenci, Lake Memphremagog, etc.

Summer Excursion No. 4, July 8-28.—Moosehead Lake and Mount Kineo House, and from thence a comprehensive tour through the Maritime Provinces, with visits to St. Andrews, Fredericton, the St. John River, and the city of St. John, in New Brunswick; the Annapolis Valley, the Land of Evangeline, Halifax, and the coal regions of Nova Scotia; the beautiful Bras d'Or Lakes of Cape Breton Island; and Charlottetown and Summerside, in Prince Edward Island.

Summer Excursion No. 5, July 13-18.— Hudson River, Saratoga, Lake George, Lake Champlain, Ausable Chasm, Rutland, Vt., etc.

Summer Excursion No. 6, July 13-24.— Hudson River, Saratoga, Lake George, Lake Champlain, the Adirondack Mountains (including Elizabethtown, the beautiful Keene Valley, Lake Placid, Adirondack Lodge, Ausable Chasm, etc.), and Burlington, Vt.

Summer Excursion No. 7, July 13-24.— Hudson River, Albany, Trenton Falls, the Thousand Islands, Alexandria Bay, St. Lawrence River and Rapids, Montreal, Quebec, Lake Memphremagog, etc.

Summer Excursion No. 8, July 13-24.— Hudson River, Saratoga, Lake George, Lake Champlain, Ausable Chasm, Montreal, Quebec, Lake Memphremagog, etc.

Summer Excursion No. 9, July 14-18.—The White Mountains, including the Franconia Notch, Flume and Pool, the Flume House, Profile House, a night on the summit of Mount Washington, Fabyan House, Mount Pleasant House, Crawford House, Mount Willard, White Mountain Notch, and North Conway.

Summer Excursion No. 10, July 14-18.— Hoosac Tunnel Route, Saratoga, Lake George, Lake Champlain, Ausable Chasm, Rutland, Vt., etc.

Summer Excursion No. 11, July 14-24.— Hoosac Tunnel Route, Saratoga, Lake George, Lake Champlain, the Adirondack Mountains (including Elizabethtown, the beautiful Keene Valley, Lake Placid, Adirondack Lodge, Ausable Chasm, etc.), and Burlington, Vt.

Summer Excursion No. 12, July 14-24.— Hoosac Tunnel Route, Albany, Trenton Falls, the Thousand Islands, St. Lawrence River and Rapids, Montreal, Quebec, Lake Memphremagog, etc.

Summer Excursion No. 13, July 14-24.— Hoosac Tunnel Route, Saratoga, Lake George, Lake Champlain, Ausable Chasm, Montreal, Quebec, Lake Memphremagog, etc.

Summer Excursion No. 14, July 14-25.—The Lehigh Valley, Mauch Chunk, Switchback Railway, Wyoming Valley, Watkins Glen, Niagara Falls, the Thousand Islands, Alexandria Bay, the Rapids of the St. Lawrence, Montreal, and Lake Memphremagog.

Summer Excursion No. 15, July 20-30.— Hudson River, Saratoga, Lake George, Lake Champlain, Ausable Chasm, Burlington, Vt., and the White Mountains, including the Profile House, Franconia Notch, Flume and Pool, a night on the summit of Mount Washington, Fabyan House, Mount Pleasant House, Crawford House, Mount Willard, White Mountain Notch, etc.

Summer Excursion No. 16, July 21-30.— Hoosac Tunnel Route, Saratoga, Lake George, Lake Champlain, Ausable Chasm, Burlington, Vt., and the White Mountains, including the Profile House, Franconia Notch, Flume and Pool, a night on the summit of Mount Washington, Fabyan House, Mount Pleasant House, Crawford House, Mount Willard, White Mountain Notch, etc.

Summer Excursion No. 17, July 22-28.— The White Mountains, including the Franconia Notch, Flume and Pool, Flume House, Profile House, a night on the summit of Mount Washington, Fabyan House, Mount Pleasant House, Crawford House, Mount Willard, and North Conway.

Summer Excursion No. 18, July 28-August 5.— Montreal, the St. Lawrence and Saguenay Rivers, Quebec, Falls of Montmorenci, Lake Memphremagog, etc.

Summer Excursion No. 19, July 28-August 1.— The White Mountains, including the Franconia Flume and Pool, the Flume House, Profile House, a night on Mount Washington, Fabyan House, Mount Pleasant House, Crawford House, Mount Willard, White Mountain Notch, and North Conway.

Summer Excursion No. 20, August 3-8.— Hudson River, Saratoga, Lake George, Lake Champlain, Ausable Chasm, Rutland, Vt., etc.

Summer Excursion No. 21, August 4-8.— Hoosac Tunnel Route, Saratoga, Lake George, Lake Champlain, Ausable Chasm, Rutland, Vt., etc.

Summer Excursion No. 22, August 10-21.— Hudson River, Albany, Trenton Falls, the Thousand Islands, Alexandria Bay, St. Lawrence River and Rapids, Montreal, Quebec, Lake Memphremagog, etc.

Summer Excursion No. 23, August 10-21.— Hudson River, Saratoga, Lake George, Lake Champlain, Ausable Chasm, Montreal, Quebec, Lake Memphremagog, etc.

Summer Excursion No. 24, August 11-21.— Hoosac Tunnel Route, Albany, Trenton Falls, the Thousand Islands, Alexandria Bay, St. Lawrence River and Rapids, Montreal, Quebec, Lake Memphremagog, etc.

Summer Excursion No. 25, August 11-21.— Hoosac Tunnel Route, Saratoga, Lake George, Lake Champlain, Ausable Chasm, Montreal, Quebec, Lake Memphremagog, etc.

Summer Excursion No. 26, August 11-22.— The Lehigh Valley, Mauch Chunk, Switchback Railway, Wyoming Valley, Watkins Glen, Niagara Falls, the Thousand Islands, Alexandria Bay, the Rapids of the St. Lawrence, Montreal, and Lake Memphremagog.

Summer Excursion No. 27, August 24-29.— Hudson River, Saratoga, Lake George, Lake Champlain, Ausable Chasm, Rutland, Vt. etc.

Summer Excursion No. 28, August 24-29.— Hudson River, Albany, Valley of the Mohawk, Niagara Falls, e

Summer Excursion No. 29, August 25-29.— Hoosac Tunnel Route, Saratoga, Lake George, Lake Champlain, Ausable Chasm, Rutland, Vt., etc.

Summer Excursion No. 30, August 25-September 2.— Montreal, the St. Lawrence and Saguenay Rivers, Quebec, Falls of Montmorenci, Lake Memphremagog, etc.

W. RAYMOND.
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AUTUMN EXCURSIONS.

A SERIES of excursions to the leading mountain, lake, river, and spring resorts of New England, Canada, and the Middle States will be arranged for the months of September and October. In this series will also be included excursions to the Battle-field of Gettysburg, the Blue Mountains of Maryland, Luray Caverns, the Natural Bridge of Virginia, Harper's Ferry, Washington, etc. Particulars of these trips will early be announced.

ANNUAL WINTER TRIPS TO CALIFORNIA

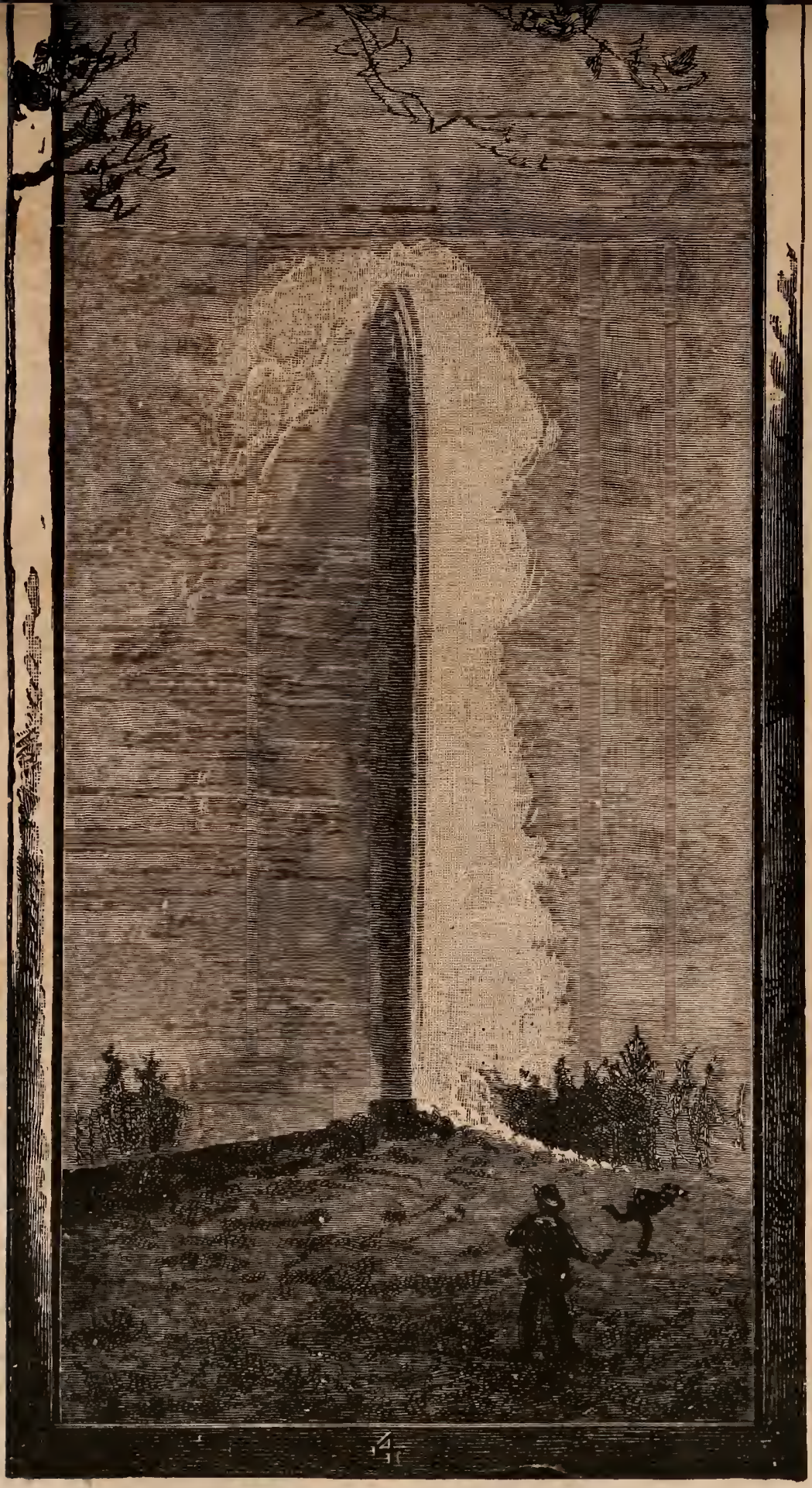
For the Season of 1891-92.

Our annual series of winter tours to the Pacific Coast, intended especially for the accommodation of persons who desire to make extended sojourns at the various California resorts (although equally available for shorter trips), will begin late in November, and continue at short intervals through December, January, February, and March. Magnificent trains of vestibuled Pullman palace cars, with Pullman palace dining-cars, are brought into requisition for all the tours, affording accommodations not otherwise attainable for the entire journey. For several seasons past these trips have been exceedingly popular. A choice of routes both ways is had, and opportunities are furnished for rapid transit, as well as for the more leisurely mode of traveling with halts by the way, so that the individual desires of travelers are fully met.

Full details will be announced at an early date.

Tours Through Mexico.

Our excursions through Mexico, which have proved so popular during the past seven years, will be resumed in January. As the facilities for travel in that interesting country are increased, we shall add to the attractiveness of these tours. There will be two trips to include California, and one or more with a return direct from Mexico, without the visit to California.



"Old Faithful" Geyser, Yellowstone National Park.